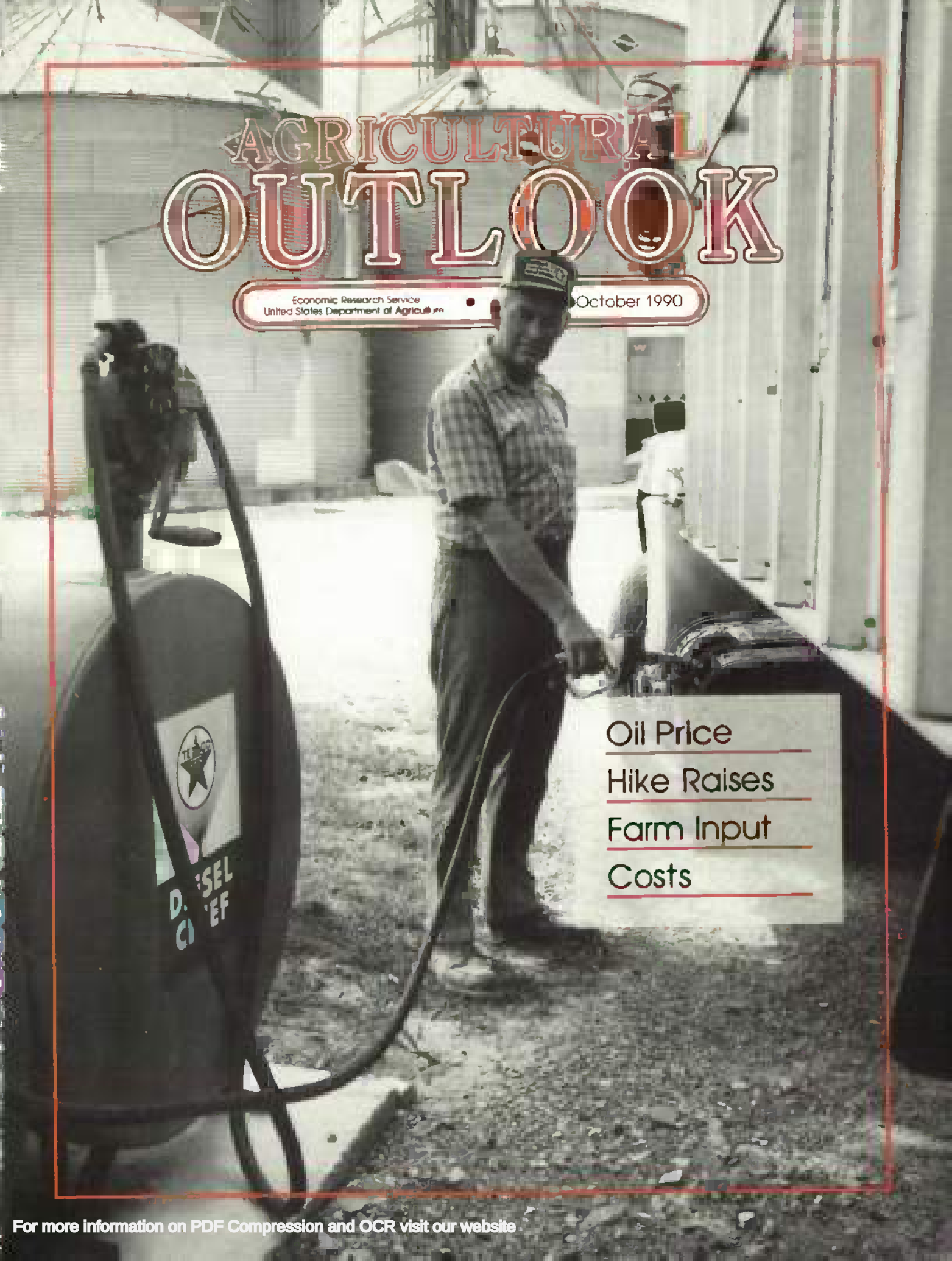

AGRICULTURAL OUTLOOK

Economic Research Service
United States Department of Agriculture

October 1990

Oil Price Hike Raises Farm Input Costs

October 1990/AO-168

AGRICULTURAL OUTLOOK

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Economics Editor—Gregory Gajewski (202) 786-3313

Associate Editor—Nathan W. Childs (202) 786-3313

Managing Editor—Diane E. Decker (202) 786-1494

Statistical Coordinator—Ann Duncan (202) 786-3313

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Production Staff—Karen Sayre, Cleta Peterson
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News of Farm Income, Changing Agricultural Trade Conditions, and Growth and Inflation Prospects

Recent commodity market developments point to lower season-average prices for corn, wheat, and milk in 1990/91 than were expected a month ago. However, these changes will have offsetting effects on U.S. farm incomes, and most of the impacts will be felt next calendar year.

For example, lower corn prices stand to increase livestock operators' incomes but trim corn producers' market receipts. As a partial offset, government payments to both corn and wheat farmers are expected to go up. But, the corn deficiency payments will not be made until calendar 1991.

As a result, the forecast range of farm income released on August 29 remains unchanged. Growth in commodity sales is pushing farm income to record highs this year despite mounting expenses and forecasts of declining prices.

Farmers' net cash income is forecast to be $59-$63 billion in 1990, about 10 percent above last year. Net farm income is expected to grow about 5 percent from 1989. Net cash income equals all commodity sales plus government payments less out-of-pocket expenses in a calendar year. Net farm income measures the value of agricultural production plus government payments less all costs in a calendar year.

The surge in oil prices since August has increased farm expenses. If oil prices average $30 a barrel for the rest of the year, farmers' fuel expenses will be 10 percent higher than in 1989, double the rate of gain forecast before oil prices started to rise.

Effects of the oil price hike on 1990 fertilizer and chemical expenses are

expected to be relatively small, but if sustained, will be more pronounced next year because most application takes place in the spring. A $10-a-barrel increase in crude oil prices would boost farm chemical expenses 2-3 percent in 1991.

If oil prices average about $20 during 1991, farmers' manufactured input expenses would be $22 billion. Increasing the oil price to $30 adds about $1.5 billion to the forecast. If oil prices were to average $40 next year, manufactured input costs would be 12-13 percent higher and total about $25 billion.

U.S. agricultural exports—both value and volume—are expected to slip during fiscal 1991. Wheat, rice, and corn exports are expected down because of large foreign supplies in importing and exporting countries.

In the U.S., slowing domestic demand growth, the hike in oil prices, and the recent downward revisions in GNP growth for the last 3 years have worsened prospects for economic growth and inflation. With oil at $30 a barrel, consumer price inflation would increase from 4-4.5 percent this year and next to 5-5.5 percent. And such an oil-price shock would shave as much as 1.5 percentage points off real GNP growth in 1991 unless the Federal Reserve loosens monetary policy.

GNP is expected to grow very slowly in 1990, gaining 1-1.5 percent in real terms. For the next 18 months, real growth is expected to range between 1.5 and 2.5 percent at an annual rate. The fourth quarter of 1990 is expected to be the weakest in the period.

The Food Security Act of 1985 expires at the end of the 1990 crop year, and, if it is not extended or replaced, permanent legislation will take effect for the 1991 crop year. The required minimum support prices under permanent legislation exceed current support rates for wheat, feed grains, peanuts, cotton, and milk by 24 to 250 percent. Congress suspended the legislation for the 1991 wheat crop.

Reported deals by two U.S. companies to sell 34 billion cigarettes to the Soviet Union over the next 2 years highlight the fact that the U.S. tobacco industry is becoming more export-oriented. Last year, cigarette exports accounted for 21 percent of U.S. production. Cigarette consumption in the U.S. slipped 18 percent during 1981-90, while exports jumped from 83 billion in 1981 to 142 billion in 1989.

Before the reforms in Eastern Europe and the Soviet Union, the growth in U.S. cigarette exports was expected to level off. Now, it looks like sales to the Soviets will absorb 3-5 percent of U.S. output. And U.S. cigarette and tobacco leaf output stands to increase despite slipping domestic consumption.

Rapid Changes Bring Risks, Opportunities

The pace of change in many of the world's institutions is proceeding faster than even the most foresighted prophets can predict, and changing the international marketplace on which U.S. farmers increasingly rely.

For starters, many centrally planned economies are rapidly moving toward market-oriented systems which mean new export opportunities, but also more competition in some commodities. And the wrenching changes are coming about because central planning cannot efficiently allocate an economy's resources to produce what its consumers desire.

The final push for European economic integration through the "Europe 1992" movement is another example of these rapid changes. Other changes to watch include the multilateral agricultural talks under the General Agreement on Tariffs and Trade (GATT), and the structural adjustments throughout the Third World in response to seemingly insolvable debt problems.

Even though the pace of change cannot be predicted, analysts do understand many of the forces behind these changes, which have been at work for some time. Recognizing these forces yields insights about how U.S. institutions might change to make the most of the new world order.

What Forces Have Been At Work?

Four changes in the past 30 years have radically altered the environment for agricultural trade:

- Trade and financial markets are more integrated. This was spurred by the rapid rise in world liquidity, international banking, and the explosion in information and communication technologies. It means that farmers worldwide depend more on global markets that are largely shaped by government policies.

- Exchange rates, once fixed, are now flexible. So, national economies are tied closer together. Exchange rates now react quickly when a country tries to change monetary and fiscal policies without regard to what its neighbors are doing. As a result, trade-dependent sectors such as agriculture feel the brunt of policy adjustments more quickly and directly.
- Green Revolution technologies markedly stepped up the rate of growth in commodity supplies. As a result, supply has exceeded demand growth on a global level, although production gains have lagged in some regions.
- Protectionism for agricultural commodities has dramatically increased both relative to other traded products and in an absolute sense. This is partly because agriculture has been largely exempt in previous GATT rounds.

The ability of farmers and exporters to take advantage of changing opportunities depends on the degree to which a country's policies foster a rapid response. The challenge to agricultural policy is to provide a flexible environment.

Government intervention in agriculture often restricts the ability of producers to respond. The industrial countries, for example, heavily subsidize farmers, encouraging production in excess of domestic needs and independent of global conditions. Yet, the developing and centrally planned economies have, on balance, taxed farmers even though food consumption there was subsidized.

Problems in global commodity markets are a symptom of the conflict between growing world economic integration and the independent pursuit of agricultural policies that reflect domestic politics. Resources in the industrial world have remained in agriculture based on policy signals, not market signals. And resources in developing countries have shifted out of agriculture in response to policies there.

The Market System: Wave of the Future?

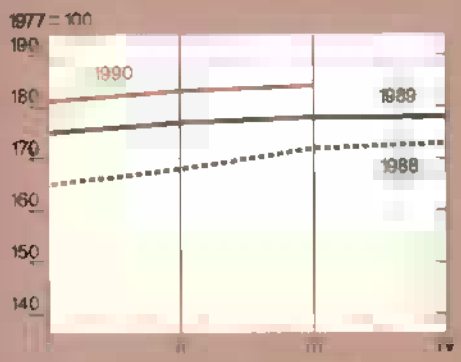
Although the major changes in the global economy look unrelated, there is a common theme. In most cases, the conflict between rigid, domestically focused policies and a rapidly changing global economy is being resolved by moving toward more open, market-oriented systems.

Most of the major changes taking place are institutional adjustments to systems that were not market-oriented and so could not adequately respond to changing demands. This is true of the centrally planned economies that rigidly adhered to fixed domestic prices in the face of rapidly changing world prices.

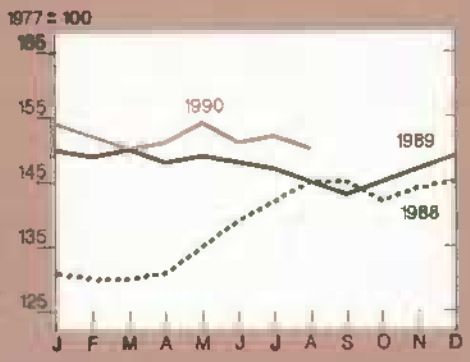
The divergence between administered domestic prices and market-determined prices means producers receive low prices, forcing consumers to contend with growing shortages. The unfilled promises of the centrally planned systems led to a loss of faith in command economies.

Prime Indicators — Agricultural Economy

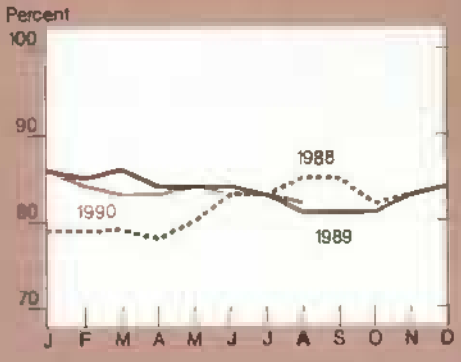
Index of prices paid by farmers



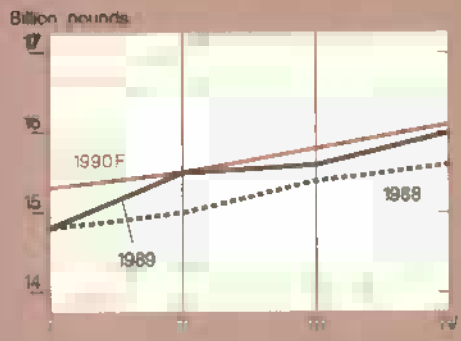
Index of prices received by farmers[1]



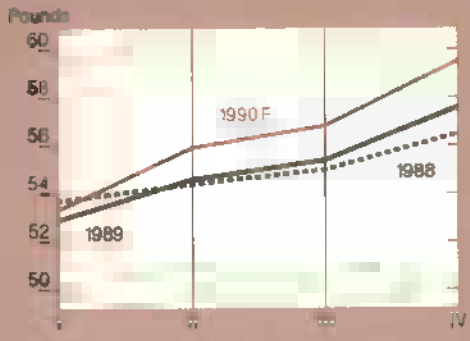
Ratio of prices received/prices paid



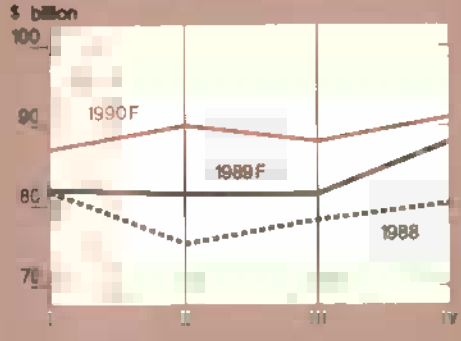
Total red meat & poultry production[2]



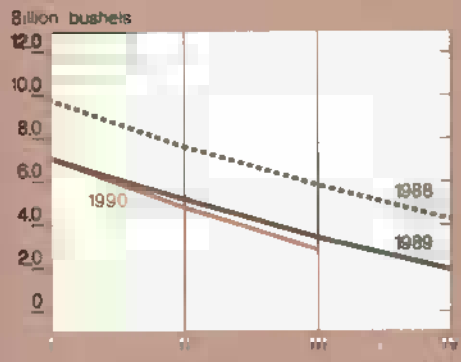
Red meat & poultry consumption, per capita[2,3]



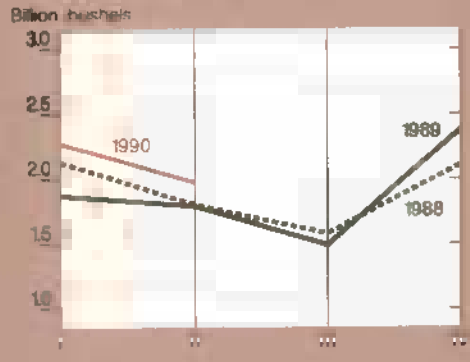
Cash receipts from livestock & products[4]



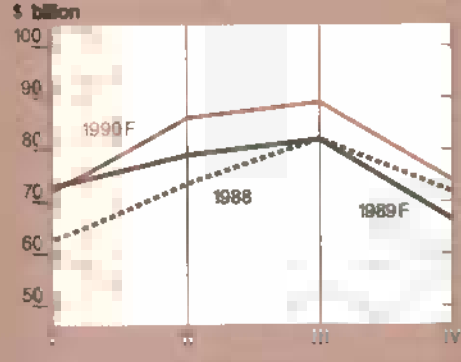
Corn beginning stocks[5]



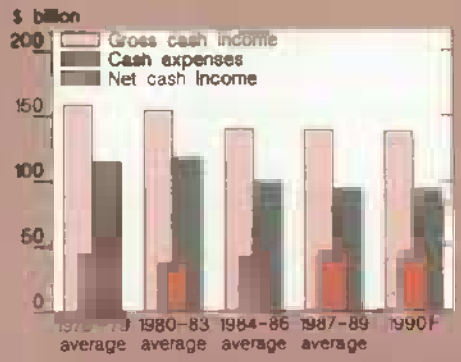
Corn disappearance[5]



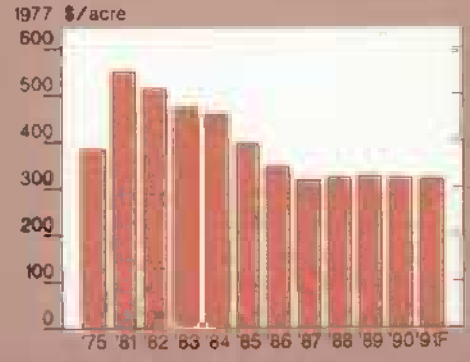
Cash receipts from crops[4]



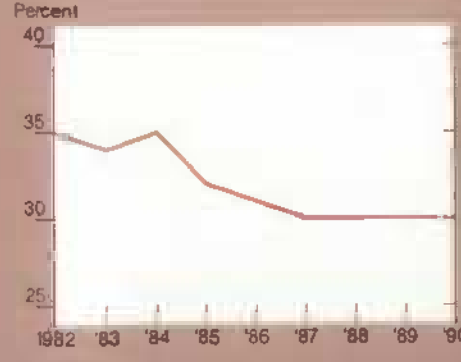
Real cash income[6]



Average real value of farm real estate



Farm value/retail food costs



[1]For all farm products. [2]Calendar quarters. Future quarters are forecasts for livestock, corn, and cash receipts. [3]Retail weight. [4]Seasonally adjusted annual rate. [5]I=Dec.-Feb.; II=Mar.-May; III=June-Aug.; IV=Sept.-Nov. [6]Cash expenses plus net cash income equals gross cash income. F=forecast

The situation in the developing countries (LDC's) is similar. Although the market distortions in LDC's were not as great as in the centrally planned economies, direct interventions in markets caused a divergence between domestic and international prices for major agricultural commodities.

The split was largely accomplished by controlling foreign exchange and credit supplies, and by establishing a system of government monopolies to control the supplies of key commodities. But the wedge between domestic and world prices could only be sustained by government subsidies funded through international borrowings. When the international financial community would no longer lend to LDC debtor countries, the systems of intervention began to break up.

The effects of agricultural policies in developed countries are not so different. Government intervention in farming is used extensively around the world, and sharply retards international prices from driving domestic prices.

Thus, farmers' decisions are based on price signals that do not clear markets. Where intervention is deliberately enforced on a large scale, as with the EC's Common Agricultural Policy, the resulting inefficiencies cost billions of dollars in poorly allocated resources.

In low-income countries, the direct effects of pushing down prices to benefit consumers are often compounded by other taxes on food producers, even though the local farm sectors employ most of the labor force. Not only are these countries financially unable to meet their food deficits with imports; their tax-burdened farm sectors often fail to generate enough local income to support the demand for food and thus meet local needs.

Such policies have turned these countries into international food welfare cases. It is hard to imagine a situation in which the combined impact of all countries' agricultural policies would lead to a less efficient global outcome.

GATT Talks Hold Promise

There is a growing consensus that domestic farm policies have global repercussions. This recognition is behind the focus on agriculture in the current GATT talks. An actual plan for reducing trade-distorting policies, however, still needs to be worked out and agreed upon—a difficult task.

A market-oriented outcome to the GATT talks would improve the environment in which commodity markets operate. Competitiveness in these markets would then be related to real comparative advantages of the producing countries.

For U.S. farmers to remain major players in world markets, U.S. policies must be realigned to reflect the new international realities. This would not mean giving up the objectives of supporting farm income and providing increased stability for farmers. But redesigning the policies to achieve these objectives without distorting market signals would improve U.S. export performance and promote efficient use of global resources. *[Mathew Shane (202) 786-1700].* AO

Livestock, Dairy & Poultry Overview

In 1991, U.S. meat production is forecast to increase about 3 percent from a year earlier. Beef output is expected to float up about 1 percent, with prices steady to somewhat higher.

Pork production is likely to rise 2 percent in the first half of 1991 and about 4 percent in the second half, largely reflecting cautious herd expansion. Barrow and gilt prices are forecast to average in the high $40's to low $50's per cwt in 1991, down from the mid-$50's this year.

Broiler prices in 1991 are expected to be slightly below 1990's average, as production is forecast to grow about 5 percent. Turkey output growth will moderate to about 5 percent in 1991, reflecting low net returns to producers in 1990.

Beef Output To Dip

Beef production in second-half 1990 is expected to be below a year earlier, with a 3-percent decline likely in the last quarter. Cattle slaughter for the year will include about the same number of fed cattle, but fewer cows and nonfed steers and heifers.

Cattle carcass weights are increasing from their annual low in May, and are expected to exceed the records achieved during August-October 1989. Since July, steer and heifer weights have increased well above the 10-year average, although the increases have been less than a year earlier.

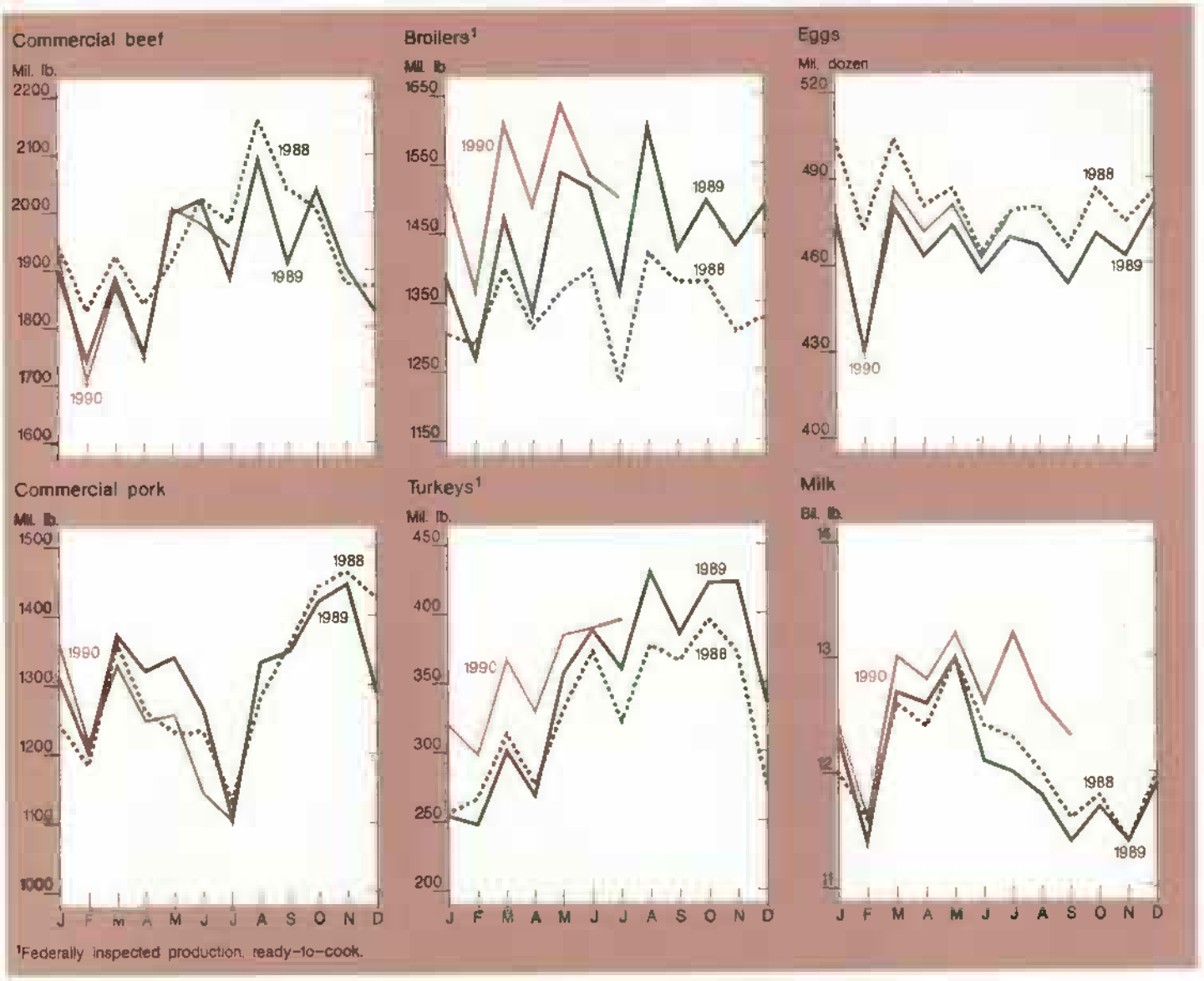
Cow slaughter this year is expected to be short of 6 million head, more than 7 percent below a year ago, and the lowest since 1979. Cow slaughter also is expected to be below 6 million head next year, a sign that the herd is continuing to expand.

During first-half 1990, cow slaughter was nearly 6 percent below a year earlier, with dairy cows off 7 percent and beef cows off 4 percent. In recent weeks, beef cow slaughter has been slightly below the low level of last year, while dairy cow slaughter has been sharply lower.

Given favorable range and forage conditions in many areas, larger hay stocks, high stocker prices, and favorable milk/feed price relationships, producers have an incentive to keep cows in breeding and milking herds rather than culling them.

Utility slaughter cow prices dropped from $58 per cwt in mid-August to the mid-$50's in early September. And lower prices are expected in coming months as beef cow slaughter increases seasonally.

Livestock and Product Output — Agricultural Economy



[1]Federally inspected production, ready-to-cook.

Placements Expected Down

The July and August seven-state *Cattle on Feed* reports indicated placements were up 18 and 6 percent from the reduced levels of a year ago, while marketings were up only slightly, raising the on-feed inventory 5 percent. Third-quarter placements probably exceeded a year ago, but by less than July's 18 percent.

However, fourth-quarter placements are not expected to reach 1989 levels. Through mid-September, range and wheat pasture conditions were near average in most areas, similar to last year. In the fall of 1989, range and wheat pasture conditions deteriorated in many areas, swelling placements of lighter weight cattle on feed. This pattern is not likely to be repeated this fall unless forage conditions deteriorate. Recent rains have further improved prospects for fall grazing.

Stocker and feeder cattle prices are expected to remain well above a year ago, and with strong demand for cattle on grass, lighter weight stocker cattle will remain out of feedlots in most areas this fall.

Choice steer prices averaged near $77 in the first half of September and are declining seasonally, perhaps to the mid-$70's by early fall. Record slaughter weights continue to suggest that marketings are not current.

However, as feedlot marketings become more current and beef supplies tighten in the late fall and early winter, fed steer prices are expected to strengthen into the upper $70's per cwt. Seasonally expanding pork output and record large poultry production likely will compete aggressively with beef at retail counters.

Commercial beef production in 1991 is forecast to expand about 1 percent above 1990, with all of the increase coming from fed cattle.

Agricultural Economy

Hog Breeding Herd Expands Slowly

Hog producers are expected to cautiously expand breeding herds this year and in early 1991, despite generally favorable net returns through midsummer. A sharp drop in hog prices late this summer clouded the long-term profit outlook.

The breeding inventory is expected to show year-over-year increases in the coming months. Small farrow-to-finish and feeder pig producers that typically have higher costs per animal are expected to reduce their breeding herds or exit the industry, but larger farrow-to-finish producers with modest returns are expected to expand their breeding herds.

Producers' intentions indicate that farrowings during June-November will be up 1 percent from a year ago. The pig crop is expected to be up 1-3 percent, depending on the rise in pigs per litter. Based on historical relationships, hog production in first-half 1991 probably will be up about 2 percent from a year ago.

With breeding herds expected to increase in second-half 1990, the December 1990-May 1991 pig crop is likely to rise moderately. Hog output in second-half 1991 is expected to be about 4 percent higher than this year.

The 7-market price for barrows and gilts is forecast to average in the high $40's to low $50's per cwt in 1991, compared with the mid-$50's expected for 1990.

Commercial pork production in 1991 is projected to rise a modest 3 percent from 1990 to 15.9 billion pounds. Retail prices are expected to decline slightly from this year's record.

Broiler Spurt Slows

Broiler production during the third quarter rose nearly 6 percent from a year earlier. Fourth-quarter production likely will grow at about the same pace.

Net returns for the second half are forecast to average 6-7 cents per pound, about the same as last year, reflecting lower broiler prices and feed costs. Broiler output is expected to continue growing in 1991, but at a slower annual rate, about 5-6 percent.

Wholesale broiler prices continue to be under pressure from large broiler supplies. The third-quarter 12-city composite price averaged 55-57 cents per pound, compared with nearly 60 cents in 1989. Fourth-quarter broiler prices are expected to decline seasonally to 48-54 cents, but probably will average slightly above a year ago.

Prices for all of 1990 likely will average 54-56 cents. Continued production increases in 1991 are expected to cause prices to slip slightly from this year.

Retail prices for whole fryers during second-half 1990 are expected to average 85-90 cents, 5-6 percent below a year ago. For the year, retail prices likely will average a bit below 1989.

Record High Turkey Stocks

Given the sharp rise in turkey production during the first half, stocks on August 1 were a record 533 million pounds, 7 percent above 1989. Whole bird stocks, mainly for Thanksgiving and Christmas, were up only 1 percent to 366 million pounds, but stocks of turkey parts were up 23 percent.

Fourth-quarter turkey output is expected to grow 4-5 percent. Total 1990 production is probably increasing 9-10 percent from 1989, the sharpest rise since 1987.

For 1991, turkey output is forecast to climb only 5 percent, reflecting this year's low producer returns. Per capita consumption should rise from about 18 pounds to around 19.

Red meat prices, particularly for pork, will as usual play a key role in fourth-quarter turkey prices. For the year, wholesale Eastern region hen prices are expected to average 63 cents per pound, about 6 percent below 1989. They are expected to average higher in 1991.

For all of 1990, retail turkey prices are estimated to average $.99-$1.02, about the same as in 1989. And little change is expected for the 1991 average price.

In the third quarter, average net returns improved and passed the breakeven point, reflecting slightly higher turkey prices and lower feed costs than a year earlier. Fourth-quarter returns should be higher as feed costs ease and turkey prices rise seasonally. But for the year, turkey producers should about break even, similar to 1989.

Cheese Prices Are Slipping

Wholesale prices of cheese and nonfat dry milk have had a topsy-turvy year. Substantial counterseasonal declines in July-August followed counterseasonal jumps in March-May. Swings in commercial disappearance caused most of this year's price variation. The summer price decreases represent an attempt by market players to find price levels supported by actual use.

Cheese prices fell 6-8 cents per pound in August and early September from the late July high, following a rise of 20-22 cents during March-July. Similarly, nonfat dry milk prices fell 36 cents per pound between the late June peak and mid-September, after an earlier rise of 48 cents.

In early September, prices of cheese and nonfat dry milk were below a year earlier for the first time this year. The CCC was purchasing significant quantities of nonfat dry milk for the first time in 2 years.

Although milk supplies will be larger, growth in cheese sales probably will be enough to slow further cheese price declines. However, markets will be unsettled until the full extent of increases in unreported stocks is known.

For further information, contact: Ken Nelson, coordinator; John Ginzel, cattle; Leland Southard, hogs; Lee Christensen, Agnes Perez, and Larry Witucki, poultry; Jim Miller and Sara Short, dairy. All are at (202) 786-1285. AO

Field Crops Overview

Global food grain output is forecast to rise and exceed use in 1990/91—wheat production will jump 9 percent while rice output probably will set a record. Ending stocks are likely to rise and prices have moved down in recent months. For soybeans and coarse grains, however, world consumption is forecast to exceed output, so stocks and stocks-to-use ratios will fall.

While soybean prices are expected to be stronger than a year earlier, corn prices have softened, and the season-average forecast price range slipped markedly in September. Record U.S. corn yields, coupled with large supplies of wheat used for feeding livestock, are putting downward pressure on corn prices.

Overall, U.S. export prospects for 1990/91 are poor. Wheat, rice, and corn exports are forecast down because of large foreign supplies, especially feed-quality wheat in the EC. For U.S. soybeans, lower domestic supplies and higher use will keep a lid on exports.

USDA Expects Record U.S. Corn Yields

	1988/89	1989/90	1990/91
	Million metric tons		
WORLD			
Wheat			
Production	501	538	587
Use	532	539	564
Exports	97	96	97
Ending stocks	116	116	139
Corn			
Production	400	461	473
Use	459	478	474
Exports	64	74	63
Ending stocks	87	70	68
Soybeans			
Production	95	106	105
Use	98	104	107
Exports	23	26	26
Ending stocks	18	19	16
UNITED STATES			
Wheat			
Production	49	55	75
Use	27	27	34
Exports	38	34	31
Ending stocks	19	15	26
Corn			
Production	125	191	206
Use	133	147	152
Exports	51	60	53
Ending stocks	49	34	35
Soybeans			
Production	42	52	50
Use	31	34	35
Exports	14	17	17
Ending stocks	5	7	5

Note: Exports of wheat and corn do not include intra-EC trade shipments. Data are for marketing years. The wheat year is July/June, and the soybean and corn marketing years are October/September.

Record Food Grain Crops Foreseen

World wheat production is forecast to reach a record 586.9 million metric tons in 1990/91. Global use is expected up just 5 percent, resulting in a 20-percent increase in stocks to 139.1 million tons, the first rise in 4 years. World ending stocks will climb to 25 percent of use.

Trade in wheat is forecast to rise less than 1 million tons to 97.2 million because production is expected to expand in numerous importing countries. Prices have fallen to their lowest since before the 1988 North American drought.

U.S. wheat supplies in 1990/91 are forecast up 20 percent from a year earlier to 3.3 billion bushels. Use is forecast up 6 percent to 2.4 billion. Ending stocks are expected to rise by 77 percent, and farm prices are likely to be around $1 per bushel below last year's $3.72.

Beginning stocks, at 535 million bushels, were down for the fourth straight year, and are the smallest portion of total supply since 1974/75. Record 1990 wheat crops are forecast in Kansas and North Dakota, the largest producing states, pushing U.S. production to nearly 2.8 billion bushels for only the third time.

Despite the large U.S. crop and lower prices, slack world import demand and increased competitor supplies are leading to an expected 9-percent drop in U.S. exports to 1.1 billion bushels in 1990/91. However, domestic wheat consumption is forecast to rise nearly a quarter due to greater feed use.

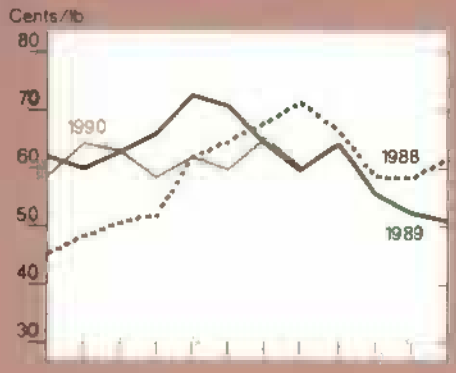
World rice supplies will be up slightly in 1990/91 and prospects are for weaker prices. Global rice production is forecast to rise marginally to a record 342 million tons (milled basis). World trade in calendar 1991 is expected to rise 5 percent, but U.S. sales probably will remain unchanged.

Thailand is forecast to capture an increasing share of the world rice market and the U.N.-sponsored trade embargo of Iraq has cut off direct U.S. shipments to that market. Iraqi purchases accounted for 13 percent of U.S. rice exports between October 1989 and July 1990. Total Iraqi food grain imports in 1990/91 are now forecast down 61 percent from the July forecast because of the embargo.

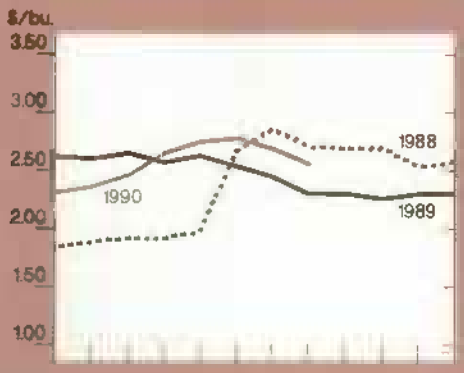
Agricultural Economy — Commodity Market Prices

Choice steers, Omaha

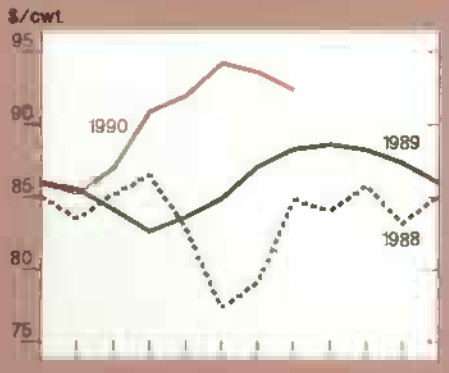
Broilers, 12-city average



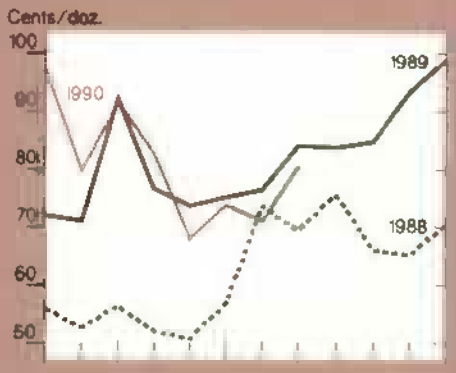
Corn, Chicago[3]



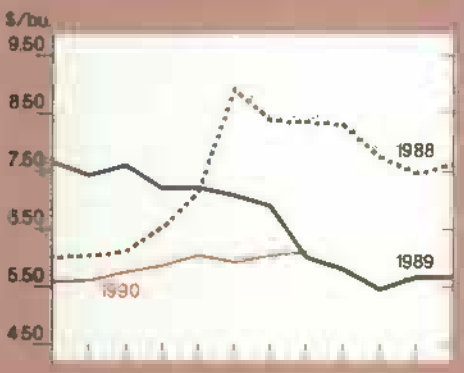
Feeder cattle, Kansas City[1]



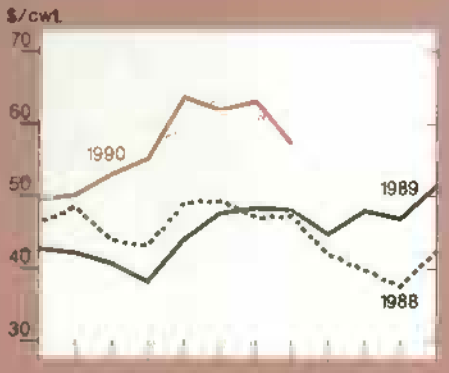
Eggs, New York[2]



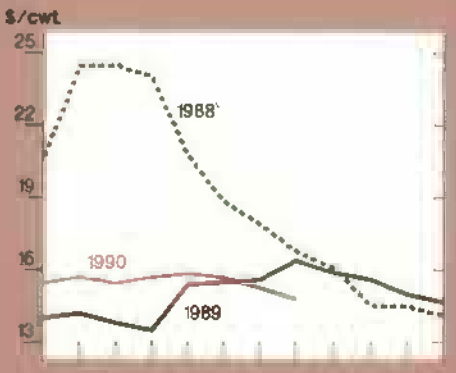
Soybeans, Chicago[4]



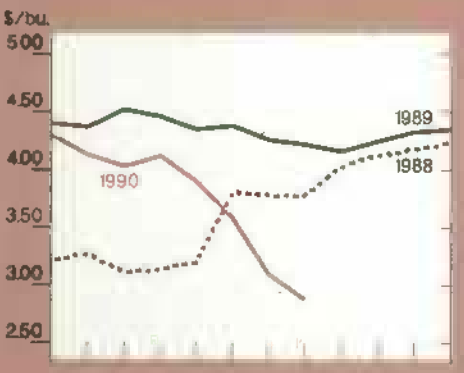
Barrows and gilts, 7 markets



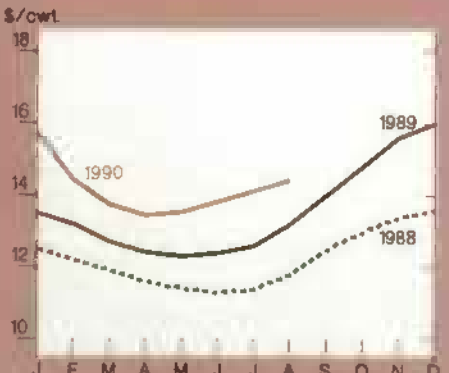
Milled Rice, SW Louisiana[5]



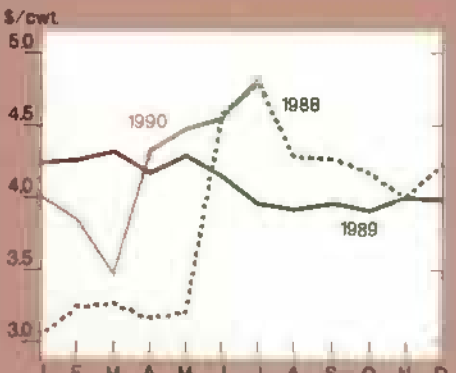
Wheat, Kansas City[6]



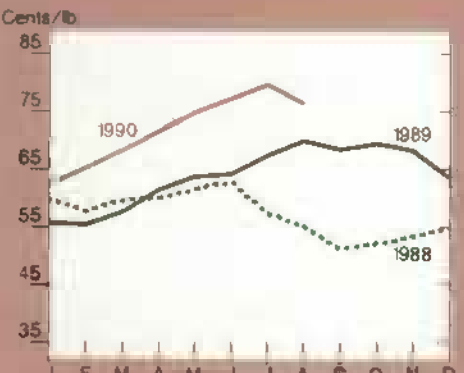
All milk



Sorghum, Kansas City



Cotton, average spot market



[1]600–700 lbs., medium no. 2. [2]Grade A large. [3]No. 2 yellow. [4]No. 1 yellow. [5]U.S. No. 2, long-grain. [6]No. 1 HRW.

U.S. Coarse Grain Supply To Slip

Global coarse grain production is expected to rise 3 percent in 1990/91 to 822 million tons, while consumption is forecast to drop slightly to 824 million. Although stocks are projected down again, the decline will be small compared with the previous 3 years.

U.S. coarse grain production is forecast up 6 percent, but lower beginning stocks will reduce supplies by 2 percent. Use also is expected to slip, but not enough to prevent a 5-percent drop in ending stocks to 43.7 million tons. This is despite the forecast of a bumper corn crop.

Larger coarse grain crops in several key importing countries, especially the USSR, and competition from plentiful supplies of feed-quality wheat are expected to reduce world coarse grain trade by 11 percent to 90.8 million tons, the lowest since 1987/88. U.S. exports, mostly corn, are forecast down 12 percent to 60.8 million tons.

The 1990 U.S. corn crop is forecast to reach 8.1 billion bushels, 8 percent above a year earlier. Crop development lagged throughout the growing season. However, markedly improved weather in August pushed crop development, boosted forecast yields to a record, and reduced the potential for frost damage. The larger crop will nearly offset the estimated drop in stocks last year, resulting in a forecast supply for 1990/91 of 9.5 billion bushels, only slightly below 1989/90.

Corn disappearance for 1990/91 is forecast to be 8.1 billion bushels, down slightly from a year earlier. Domestic use is forecast up about 220 million bushels, but exports are expected to drop about 275 million. Ending stocks are forecast to rise about 3 percent to 1.4 billion bushels.

Ending corn stocks are estimated to equal 17 percent of use, indicating a slightly looser market than in 1989/90. The season-average farm price for 1990/91 is forecast to range from $2.10 to $2.50 per bushel, compared with last year's $2.38.

Food, seed, and industrial use of corn in 1990/91 is expected to rise 2 percent. Most of the increase likely will be in wet milling production of corn sweeteners and ethanol. Dry milling use is expected to be about the same or up only slightly.

U.S. Soybean Use Remains Strong

Although world oilseed production is forecast to rise 3 percent to a record 217 million tons in 1990/91, soybean output is expected to drop 1 percent to 105 million tons. Lower prospective harvests in the U.S. and Brazil are responsible. World soybean use will rise more than 2 percent, significantly reducing stocks and putting upward pressure on prices.

Major producing countries will account for most of the rise in soybean use, so world trade is expected to remain even with a year earlier. U.S. exports probably will drop slightly. However, soybean meal exports are forecast up 11 percent to nearly 5 million tons. The rise is based on expected consumption increases in the Soviet Union and several North African, Middle Eastern, and Asian markets, coupled with lower exports from Brazil.

U.S. soybean production in 1990 is forecast to be 1.8 billion bushels, down 5 percent from a year earlier. Ending stocks are expected to slip 20 percent. Even though the crop was planted late, a frost in early October probably would not affect yields much, but quality would slip, ultimately affecting oil and meal production.

Soybean consumption is forecast to rise slightly in 1990/91, following an 11-percent runup in 1989/90. Forecast total use is 1.9 billion bushels, the largest in 3 years. With production prospects in South America trailing a year earlier, U.S. growers likely will find a strong seller's market going into 1990/91. Cash prices in August ranged around $6.10 a bushel, and November contracts (as of late September) climbed above $6.40.

Favorable soybean meal and livestock prices, which pushed domestic soybean meal use up 15 percent in 1989/90, are expected to continue and support a slight rise in 1990/91 use to a record 22.6 million short tons. Domestic soybean oil use probably will remain unchanged from last year's 12 billion pounds.

Cotton Market Is Booming

World cotton production is forecast up 9 percent to 87 million bales in 1990/91. Foreign production, at 72 million, is expected to be the second highest ever. Nevertheless, foreign stocks probably will be a record low 21 percent of total use as foreign consumption expands to an estimated record 78 million bales. An increase in the foreign cotton export forecast to 17.5 million bales means stocks are likely to fall 1 percent to 20.5 million bales.

U.S. cotton production in 1990 is estimated to be 14.7 million bales, up 21 percent from last year. Larger planted area, reflecting this season's smaller acreage reduction program and stronger prices, is primarily responsible. U.S. mill use in 1990/91 is estimated to be 8.2 million bales, down 6 percent from last season's strong pace.

Higher cotton prices, lower manmade fiber prices, exchange rates favoring increased cotton textile imports, and a smaller cotton supply are pulling down raw cotton use this season. Yet there is little prospect of U.S. stock replenishment this year. Ending stocks are forecast to be down 6 percent from 1989/90's low of 3 million bales.

U.S. cotton exports in 1990/91 are forecast to be 6.8 million bales, down 1 million from 1989/90. Smaller domestic supply, competition from domestic mills, and higher foreign production are

expected to keep a lid on U.S. exports. The U.S. share of global cotton trade in 1990/91 is projected to be 28 percent, down from last year's 32 percent. *[Jim Cole (202) 786-1840 and Robert Cummings (202) 786-1826]*

For further information, contact: Sara Schwartz, world food grains; Edward Allen, domestic wheat; Janet Livezey, domestic rice; Pete Riley, world feed grains; Larry Van Meir and Jim Cole, domestic feed grains; Robert Cummings, world oilseeds; Roger Hoskin, domestic oilseeds; Carolyn Whitton, world cotton; Scott Sanford, domestic cotton; Jim Schaub, domestic peanuts. World information (202) 786-1824; domestic (202) 786-1840. AO

Specialty Crops Overview

Apple, cherry, grape, and peach crops are expected to be smaller than a year earlier, while pear, apricot, and nectarine production is forecast to be larger. Overall, noncitrus fruit output in 1990 is likely to be smaller than a year earlier.

A record harvest of 10.9 million tons of contracted tomatoes is forecast for 1990, 17 percent above a year earlier. Sweet corn and green pea production for processing also are up in 1990 while snap bean output is down.

Starting this month, a tariff-rate quota is replacing a numerical quota for U.S. sugar imports. The volume of sugar imports being allowed in at the lower duty level for the fiscal year is 8 percent lower than estimates of sugar imports under the old quota for the past 12 months.

East Bloc Brightens U.S. Tobacco Prospects

Reported deals by two U.S. companies to sell 34 billion cigarettes to the USSR over the next 2 years highlight the fact that the U.S. tobacco industry is becoming more dependent on exports. The Soviet deal is equal to nearly 25 percent of U.S. cigarette exports in 1989 and appears to be only a forerunner of U.S. cigarette trade with East European and newly industrialized countries.

Cigarette consumption in the U.S. declined 18 percent between 1981 and 1990, due largely to slipping social acceptance, health concerns, and rising prices. Meanwhile, U.S. exports jumped from 83 billion cigarettes in 1981 to 142 billion in 1989.

The growth in exports reflects lowered trade barriers in Far Eastern countries such as Japan, Taiwan, and South Korea. Other contributing factors are the high quality of U.S. cigarettes, rising incomes in importing developing countries, and the drop in the dollar.

As they move to market-oriented systems, East European countries are showing increased interest in importing U.S. cigarettes. The Soviet sale likely is only the beginning of an important trade with the former Communist bloc countries.

Sales to the Soviet Union may take 3-5 percent of U.S. cigarette production within 2 years. This, combined with potential sales to other East European countries such as Czechoslovakia, Bulgaria, and what was formerly East Germany, means that export sales stand to more than offset the steadily declining domestic market. U.S. cigarette and leaf output may stabilize or increase even with big reductions in domestic cigarette consumption.

Noncitrus Fruit Crop Expected Smaller

Output of 10 major noncitrus fruits in 1990 is expected to be 6 percent below a year earlier, mostly the result of smaller apple, cherry, grape, and peach crops.

Production prospects for olives, California plums, and dried prunes also are lower than in 1989. September forecasts placed 1990 production of the 10 crops at 13.2 million short tons. The 10 fruits are apples, apricots, grapes, nectarines, olives, peaches, plums, prunes, and sweet and tart cherries.

If the 9.7-billion-pound forecast is realized, U.S. apple production will be 3 percent smaller than a year earlier. Prospects in the central U.S. are lower due to weather-caused diseases and excessive fruit drop. High temperatures during July also slowed apple growth in Washington.

The smaller apple crop likely will boost returns in 1990/91 if quality is up to par. Although sunburn was more of a problem than usual in Washington, and sizing was slow, early indications are that apple quality will be average.

Smaller cold storage stocks of fresh apples than a year earlier kept prices strong through mid-August. Grower prices for fresh apples averaged 20.4 cents a pound in August, up 28 percent from a year earlier. Cold storage stocks on August 1 were 119 million pounds, down 32 percent from a year earlier. Carryover stocks of fresh apples typically are only a small portion of the new season's supply and will not affect prices in 1990/91.

U.S. pear production in 1990 is estimated up 2 percent due to larger crops in the major growing areas. Fruit size is reported to be near normal and quality is good to excellent.

The demand for canning Bartletts is expected to remain strong in 1990. Trade sources indicate that about a quarter of the Bartlett crop will be marketed fresh and the remainder processed. Only about 15 percent of red Bartlett production will be processed.

Although the larger crop will put downward pressure on fresh pear prices this season, grower prices have remained strong the past few years despite consistently larger crops. The industry has

invested heavily in advertising and promotion to stimulate domestic and export demand.

But now, rising imports from the Southern Hemisphere may be putting downward pressure on prices for storage pears late in the marketing season. In August, grower prices for fresh pears averaged $288 per ton, down 21 percent from a year earlier.

September forecasts for this season's grape output were down 8 percent from last year. California's prospects were lower for all types (table, wine, and raisin). California dominates U.S. grape production, accounting for over 90 percent of total output in 1989.

Table grape quality in California is reported excellent, and prices are strong. Prices for fresh Thompson Seedless, f.o.b. central California, during August generally were 10 to 25 percent ahead of a year earlier.

Processing Tomato Crop Sets Record

An estimated 10.9 million tons of contracted processing tomatoes for 1990 will be harvested, up 17 percent from 1989. Normally, about 98 percent of total output is grown under contract. U.S. output of processing tomatoes averaged 7.5 million tons during 1984-88.

U.S. imports of processed tomato products have increased during the past several years. Demand, especially for tomato paste, is growing and prices have been strong. U.S. per capita consumption of processing tomatoes was 61 pounds (farm weight) in 1988, compared with 17.8 pounds for fresh tomatoes.

Contracted production of the four major vegetables for processing (snap beans, sweet corn, green peas, and tomatoes) is forecast to be 15.5 million tons in 1990. Snap bean production is estimated down 9 percent from 1989, sweet corn up 11 percent, and green peas up 8 percent.

Old Sugar Quota Is Gone

Starting this month, a tariff-rate quota is replacing the absolute import quota system that has regulated U.S. sugar imports since 1982. The tariff-rate quota will allow a fixed amount of sugar into the country at a relatively low duty (0.625 cents a pound), and additional imports at a much higher duty (an additional 16 cents a pound). The tariff-rate quota allows the U.S. to comply with GATT rules as interpreted by a GATT panel in 1989.

On September 14, USDA announced that 1.9 million short tons of sugar, raw value, could be imported at the lower duty level between October 1, 1990 and September 30, 1991. This represents an estimated 8-percent drop from sugar imports under the old system during the past 12 months.

USDA's current U.S. sugar production forecast for fiscal 1991 is 6.5 million short tons, raw value, down 115,000 tons from a year earlier. Production shortfalls in Louisiana and lower-than-expected beet sugar production in Minnesota and North Dakota are the reasons for the downturn.

U.S. sugar use is expected to rise 1.2 percent during fiscal 1991 due to population and income growth. Sugar use, which declined during the early 1980's, has generally risen since 1985.

U.S. Pistachio Output Surges

U.S. tree nut supplies for 1990/91 will rise nearly 11 percent from last year's record because of larger crops for all major nuts, except walnuts and pecans, and large carryover stocks. However, use of a reserve pool by the almond industry will reduce total marketable supplies somewhat.

Almond production is estimated to be 655 million pounds (kernel weight), up 34 percent from 1989 and nearly as large as the record 1987 crop. Adding the carryover from 1989/90 brings total supply to about 870 million pounds, 19 percent larger than the previous record in 1988/89.

As a result, prices will be lower than last year. However, the industry proposes holding 220 million pounds in reserve to help hold up prices. Reserve almonds are withheld from the U.S. market until demand conditions change or the reserves are diverted to noncompetitive uses.

Walnut output is estimated at 225,000 tons, in-shell equivalent, 2 percent below 1989 production. The total walnut supply, including carryover stocks, is expected to be the lowest since 1986/87.

U.S. pecan production is forecast to be 221 million pounds, in-shell basis, 12 percent below 1989. Cold spring weather followed by hot and dry conditions reduced output in several southeastern states. If the September forecast materializes, 1990/91 prices will be higher than a year earlier. Carryover stocks of pecans into the 1990/91 season are smaller than normal.

First estimates of 1990 pistachio output are for a record 115 million pounds, in-shell basis, 3 times greater than the small crop harvested a year earlier. Pistachios also are an alternate bearing crop and 1989 was an off-production year in the U.S.

Hazelnut (filbert) output is forecast to be 21,000 tons, in-shell, up 62 percent from 1989. Last year's short supply resulted in increased imports. Prices are expected to be nearly the same as last year despite the larger U.S. crop. *[Glenn Zepp (202) 786-1883]*

For further information, contact: Kate Buckley, fruit; Gary Lucier, vegetables; Peter Buzzanell, sweeteners; Verner Grise, tobacco; Doyle Johnson, tree nuts and greenhouse/nursery; David Harvey, aquaculture; Lewrene Glaser, industrial crops. All are at (202) 786-1883. AO

Commodity Spotlight

"New" Beef Price Spreads

New methods and data are now being used to estimate the retail price and farm and wholesale values for Choice beef price spreads. The changes lowered estimates of retail prices and raised net farm values.

Now, there is a smaller estimated spread between farm values and retail prices. The new results reflect changes in the beef industry since these series were last modified in 1978. The series are published in Table 8 in the back of each *AO*.

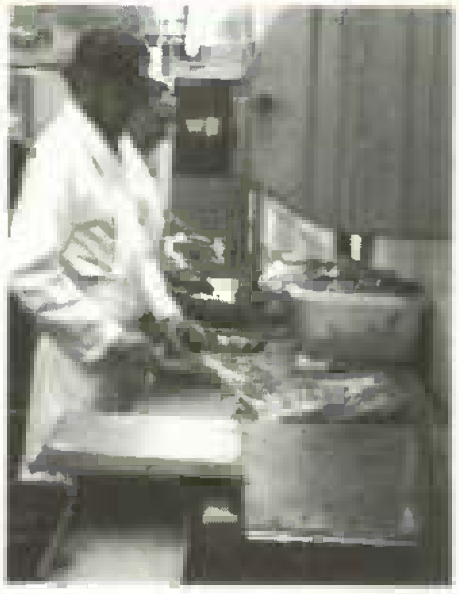
Three major changes occurred in the beef marketing system over the last decade or two:

- Less than 5 percent of fed steers and heifers are now sold through terminal markets—nearly all are sold directly from feeders to meat packers.
- Beef wholesale cuts that are processed and boxed at the packing plant have supplanted the traditional quartered beef carcass in the wholesale market.
- More fat and bone are commonly removed from beef before retail cuts are sold.

As beef marketing has evolved, so has the information about the system. In 1989, USDA Market News began reporting a sales-weighted Choice steer price for "five direct markets." And in 1990, Market News ceased reporting a wholesale price for Choice carcasses because carcass trading had become so thin. Market News also revised its boxed beef composite value report in 1990.

In addition, the Bureau of Labor Statistics (BLS) now provides retail prices for an expanded selection of closely trimmed boneless cuts of Choice beef.

USDA made five distinct methodological changes to Choice beef price and price spread estimates. The modifications, and their effect on prices and spreads, focus on:



What Are Price Spreads?

Price spreads for Choice beef show the differences in value for a pound of meat as it moves through the marketing channel at three levels—live steer at the farm, fresh beef in the wholesale market, and retail cuts at the grocery store.

The farm price or "gross farm value" is converted to a "net farm value" by subtracting the value of byproducts and applying a conversion factor to account for the weight lost in converting a live steer to meat. The value of byproducts (i.e., hide, fat, and bone) is removed because byproducts are not normally sold through retail food outlets. In this way, live, wholesale, and retail products are put on a comparable retail weight and value basis.

Price spreads provide an estimate of how much the farm product contributes to the final retail value. And they show how much value is added at later processing and sales stages.

Price spreads do not directly indicate profitability at any stage—instead they are best used to show changes over time in the relative contributions of farmers, packers, and retailers.

Gross Farm Value—The computed "eight markets" price, which included terminal market prices, was replaced with the Market News' "five direct markets" price as the primary measure or "gross farm value" at the farm or live-animal level. During April 1989-90, the "five markets" price averaged $0.86 per cwt higher.

Wholesale Value—The most important conceptual and numerical change is at the wholesale level. It reflects the real shift in carcass breaking and fabricating from the retailer to the meat packer. The new wholesale value replaces the old carcass value, and is based on Market News' reported Choice, Yield Grade 1-3, 500- to 700-pound boxed beef cutout price.

This wholesale price, less byproduct value and transportation costs, and converted to a retail weight basis, becomes the new wholesale value. The boxed beef wholesale value is naturally higher than the displaced carcass value because it represents a further-processed product.

Treatment of Byproducts—Now that beef carcasses are broken into wholesale cuts (called primals or subprimals) at the meat packing plant rather than at the retail store, more waste fat and bone are handled by packing plants and less by the stores. Previously, retailers sold the byproducts at a profit. Now, renderers will pick up byproducts from retailers, but the byproducts are worth only the cost of picking them up.

Byproduct value at the wholesale or packer level is greater than before, but not enough to offset lost byproduct value at the retail level. So overall, byproduct value is slightly lower in the new series. A smaller byproduct value means a larger net farm value because gross farm value minus byproduct value equals net farm value.

Contribution of 50-Percent Lean Trim—When a Choice carcass is processed into smaller cuts, pieces of meat

Industry and Data Changes Shrink the Spread Between Farm and Retail Choice Beef Values

		1989					1990	
		1st qtr	2nd qtr	3rd qtr	4th qtr	Year	1st qtr	2nd qtr
		Cents per pound						
Choice retail price	Revised	260.7	267.0	268.0	266.9	265.7	272.6	281.2
	Previous	266.3	269.9	270.7	272.7	269.9	281.4	287.0
	Difference	-5.6	-2.9	-2.7	-5.8	-4.2	-8.8	-5.8
Wholesale value	Revised	177.3	180.4	172.5	176.8	176.8	186.9	189.8
	Previous	162.7	165.2	154.8	159.8	160.6	168.6	169.5
	Difference	+14.6	+15.2	+17.7	+17.0	+16.2	+18.3	+20.3
Net farm value	Revised	159.9	160.2	151.2	158.9	157.6	168.0	167.3
	Previous	159.1	159.2	148.8	154.5	155.4	164.6	164.9
	Difference	+0.8	+1.0	+2.4	+4.4	+2.2	+3.4	+2.4
Total farm-to retail spread	Revised	100.8	106.8	116.8	108.0	108.1	104.6	113.9
	Previous	107.2	110.7	121.9	118.2	114.5	116.8	122.1
	Difference	-6.4	-3.9	-5.1	-10.2	-6.4	-12.2	-8.2
Farm-to-wholesale spread	Revised	17.4	20.2	21.3	17.9	19.2	18.9	22.5
	Previous	3.6	6.0	6.0	5.3	5.2	4.0	4.6
	Difference	+13.8	+14.2	+15.3	+12.6	+14.0	+14.9	+17.9
Wholesale-to retail spread	Revised	83.4	86.6	95.5	90.1	88.9	85.7	91.4
	Previous	103.6	104.7	115.9	112.9	109.3	112.8	117.5
	Difference	-20.2	-18.1	-20.4	-22.8	-20.4	-27.1	-26.1

and fat are trimmed off. They are gathered together into a mix called 50-50 trim (i.e., 50-percent lean and 50-percent fat).

Hamburger must be at least 70-percent lean, according to USDA standards. So wholesalers take very lean beef from cow and bull carcasses and mix it with this Choice 50-50 trim to bring the proportion of lean to over 70 percent. But, the value of meat from cows and bulls cannot properly be included in the Choice steer wholesale or retail values.

For the new estimates, the actual wholesale value and weight of the 50-percent lean trim determines its contribution to the retail value. Previously, a mathematical adjustment was made to the estimate that "removed" fat from trimmings so that the fat content was low enough for the trimmings to be considered sold as ground beef.

The new procedure better reflects reality. However, the included fat also increases the percentage of lower-valued ground beef in the composite of all retail cuts. This lowers the weighted average retail price of Choice beef.

Composite Retail Choice Price—The new estimates use a new mix of Choice retail cut prices to estimate a composite retail price. Most new cut prices are provided directly by BLS, but USDA calculates five from BLS prices of other cuts using a conversion formula. The new retail cuts are boneless, except for short ribs, and reflect a closer (1/4 in.) fat trim.

Further processed leaner cuts are generally higher priced, but not enough to offset the 50-percent trim value reduction. The net result is a slightly reduced composite retail price.

Retail Spread Is Smaller

For 1989, compared with the old estimates:

- the revised Choice beef retail price is 4.2 cents per pound lower,
- the wholesale value is 16.2 cents higher,
- the net farm value is 2.2 cents higher, and the total farm-to-retail spread is 6.4 cents smaller.
- the farm-to-wholesale component of the farm-to-retail spread is 14 cents larger and the wholesale-to-retail share is 20.4 cents smaller.

The shift in values from the old to the new estimates does not reflect abrupt changes in the industry itself. Moreover, the widened farm-to-wholesale spread and the tightened wholesale-to-retail spread reflect the gradual shift of the carcass breaking and fabrication functions from the retail store back to the meat packing plant. [Lawrence A. Duewer and Kenneth E. Nelson (202) 786-1712] AO

Commodity Spotlight

Boom & Bust For Peanut Exports

U.S. peanut exports topped 1 billion pounds in 1989/90 (August-July), after averaging just over 650 million pounds a year for the previous 3 years. The 1-billion mark has been passed only four other times—in the heyday of U.S. peanut exports from 1977/78 to 1979/80, and in 1985/86. Yet many of the same factors that caused U.S. exports to soar last season are unlikely to occur again in 1990/91.

After climbing 8 percent in 1989/90, world peanut trade is expected to show little or no growth this year. Moreover, larger exportable supplies will allow major competitors, principally China and Argentina, to return to the world market and be more price competitive.

But most importantly, the U.S. will not have as many peanuts to export because a drought has devastated the crop in the Southeast. The first draw on this year's smaller crop (3.6 billion pounds versus 4 billion in 1989/90) will be the domestic food and seed markets, where prices are highest.

U.S. peanut exports are forecast to drop to 500 million pounds in 1990/91, largely due to the smaller U.S. crop. China's exports are forecast to rebound to 550 million pounds from 440 million in 1989/90 and Argentina's to 380 million from 345 million. And if the U.S. cannot supply its regular customers, China and Argentina likely will expand exports to make up the difference.

The U.S. is unique among the major peanut producers because it uses peanuts primarily for food rather than crushing them for vegetable oil and animal feed. Domestic food use in 1989/90 is estimated to be a record 2.3 billion pounds—nearly 9.3 pounds per capita—up from just 7.8 pounds a decade ago. While U.S. growers have seen domestic food use reach new highs in all but one year in the 1980's, export success has been mixed.

China, Argentina, & U.S. Dominate Peanut Trade

Several characteristics of world peanut trade help explain last year's surge in U.S. exports. First, world trade in peanuts is small compared with production. Of 21 million metric tons produced, only about 1.2 million are traded. Thus, a relatively small change in production in an importing or exporting country can cause a much greater percentage change in trade.

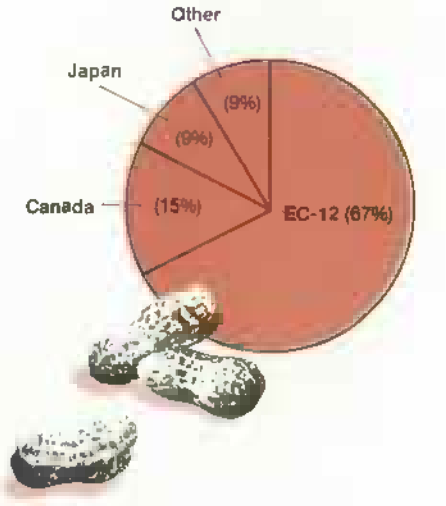
Second, just three countries, China, Argentina, and the U.S., account for 60 percent of exports, and when output is off in two, the third can gain substantial market share. The rest comes from small exporters such as India, South Africa, Malawi, and Vietnam.

Third, the biggest import markets for peanuts are the EC, Canada, and Japan, all traditional customers of the U.S. The U.S. is potentially a large market, but uses a quota to restrict imports to 2 million pounds a year. This protects some U.S. growers from lower priced foreign peanuts.

The U.S. exports peanuts as raw shelled edible kernels, in-shell (so-called "ballpark" peanuts), prepared or preserved (partially or wholly processed kernels), and oilstock (low quality kernels intended for crushing). Exports of all categories rose 46 percent during 1989/90 (August-July) from a year earlier. Shelled edibles, which typically account for 70-75 percent of peanut exports, advanced 50 percent, and in-shell peanuts, typically accounting for one-tenth, rose 30 percent.

The U.S. was the world's leading exporter until the 1980 drought devastated production. China entered the world market that year and has remained a major force ever since. China was the top peanut exporter in 1980 and again in 1986/87 and 1987/88. The U.S. was the leading exporter from 1981/82 to 1985/86.

EC-12, Canada, and Japan Are Largest Importers of U.S. Peanuts



August-July 1988/89.

The U.S. regained the lead in 1988/89 and moved well ahead of China the following year. Argentina ranked third during the 1980's. The U.S. share of world trade in 1988/89 was 36 percent, compared with 16 percent for China and 13 percent for Argentina.

U.S. export performance depends primarily on having an available supply of quality peanuts. Surprisingly, the 1988 and 1989 crops, which provided the peanuts exported during 1989/90, were small compared with production in the mid-1980's. Yields have been poor since the 1986 drought, and despite more acres, production has stayed below 4 billion pounds a season.

Early reports from the southeastern U.S. show yields and quality are both down in 1990, limiting exportable supplies for 1990/91.

World Trade Rebounded

A combination of events in 1989/90 led to the surge in U.S. exports. Although

the size of the 1989 crop was disappointing, the quality was good. And good quality is essential, because world trade is largely in edible kernels. Quality is perceived to be one of the competitive advantages held by the U.S.

After lagging in 1988/89, world demand increased 8 percent in 1989/90, affording the U.S. a larger potential market. So, even if the U.S. had just maintained market share, growth in trade would have boosted U.S. exports.

Finally, both Argentina and China harvested smaller crops in 1989 than in recent years. And because a greater share of China's smaller crop went for domestic food and crushing in 1989/90, less was available for export. Argentina's export supply was cut sharply in 1989 and only partially recovered with this spring's harvest, too late to pose strong competition for the U.S.

Another factor that may have contributed to U.S. export success is the cumulative effect of the Targeted Export Assistance (TEA) program for peanuts. The Food Security Act of 1985 gave USDA the authority to use Commodity Credit Corporation funds or commodities to counter or offset the adverse effects of unfair trade practices on U.S. agricultural exports.

The program has provided funds to promote U.S. peanuts and peanut products in Europe. Funding began with $4.5 million for fiscal 1987 and 1988 and rose to $5 million in calendar 1989. Funding expanded to $7 million for calendar 1990. Unlike the Export Enhancement Program, funds provided under TEA are not used to assist individual sales, but are spent on general promotional efforts.

Recent export success was concentrated in the EC and Canada. France, the Netherlands, the United Kingdom, and Canada have substantially increased imports of shelled edible peanuts from the U.S. Gains in in-shell exports are notable in the United Kingdom, the Federal Republic of Germany, Italy, and Canada.

Canada was once exclusively a U.S. market, but turned to China and Argentina when the 1986 drought made U.S. supplies uncertain and competitor prices became attractive. The U.S. has recaptured much of its lost Canadian market.

Although Japan has always been a large market for the U.S., Japanese import quotas on unprocessed peanut kernels limit U.S. access. China has a larger and growing share of the Japanese market.

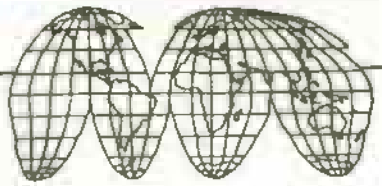
Peanut Butter Spreading to EC

The U.S. exports relatively few processed peanuts—most are exported as raw kernels or in-shell peanuts. Most are eaten as salted nuts, or used in candies or other products.

Except for Canada, which uses peanuts much like the U.S., very few countries consume much peanut butter. However, this is changing as foreign consumers become familiar with peanut butter's taste and nutritional value.

The biggest U.S. customers for peanut butter are Saudi Arabia, Japan, and Hong Kong. Efforts to introduce American habits into the EC appear to be succeeding in Germany and the United Kingdom, where peanut butter exports have increased sharply since 1985.

The billion-pound export volume, record domestic food demand, and a 4-percent growth in seed demand pulled 1989/90 ending stocks to the smallest since 1983/84. Strong demand for these uses limited peanuts for crushing, leading to extreme tightness in the peanut oil market. The smaller 1990 crop means tighter supplies in all segments of the peanut industry in 1990/91. *[James Schaub (202) 786-1840]* AO



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Hurry! Space is limited.

U.S. Ag Exports To Dip in 1991

During fiscal 1991, the value and volume of U.S. agricultural exports are expected to decline. Wheat, rice, and corn exports are expected down because of large foreign supplies in importing and exporting countries.

U.S. corn exports, for starters, are forecast to fall over 7 million tons—overseas customers are instead using more feed-quality wheat grown abroad. Another negative factor is the loss of East Germany's corn market as the EC's import levy is extended with German unification. East Germany typically imported 500,000 tons of U.S. corn annually.

Fiscal 1990 U.S. agricultural exports probably reached 148.5 million metric tons, worth $40 billion, both slightly above 1989. Increased exports of high-value products and cotton offset lower prices for other bulk products. However, the increase in high-value exports was largely due to corrections of previous underreporting of exports to Canada.

Export volume likely rose about 2 million tons in fiscal 1990, as larger corn and soybean exports offset lower wheat exports. During the first 10 months of fiscal 1990, corn exports rose 8 million tons, soybean exports rose 2.5 million, and wheat exports fell 7 million.

Lagging wheat exports are the result of larger prospective crops in several major importing countries (including the USSR and China), increased competitor supplies (especially Canada), and buyers' anticipation of lower prices in the future.

Sales to China, Egypt, Dropped

U.S. agricultural exports to China likely fell more than 40 percent in fiscal 1990,

largely because of lower wheat exports. Fiscal 1989 U.S. wheat shipments to China totaled 8.2 million tons. But during the first 9 months of fiscal 1990, China's wheat imports from all sources fell nearly 10 percent, and the U.S. market share fell from roughly 50 percent to 25. Australia and Canada have gained market share.

U.S. corn and cotton exports to China rose in 1990, but shipments of most other products slumped due to China's economic problems and improved crop prospects. Monetary, fiscal, and administrative austerity measures in force since 1988 have cooled the overheated Chinese economy. Real 1990 GNP growth may be even lower than the comparatively low 4 percent of 1989. In 1988, GNP grew by more than 11 percent.

Between December 1989 and March 1990, China's foreign exchange reserves rose $4.3 billion to $21 billion as exports increased and imports fell. China is expected to continue building its reserves in anticipation of peak debt repayment during 1991 and 1992.

Wheat export prospects for Egypt have weakened as well. Exports are forecast down largely because of Egypt's difficulty with past-due payments for GSM-102 credits received in earlier years. After rising 18 percent to $955 million in fiscal 1989, U.S. agricultural exports to Egypt may have declined to $700 million in 1990.

Egypt's imports of U.S. vegetable oil are forecast down, and the country's chronic foreign exchange shortage has curtailed purchases of U.S. tallow and poultry meat. However, U.S. short-staple cotton exports to Egypt rose 86 percent during the first 10 months of fiscal 1990 as Egypt continued to increase textile exports and sell long-staple cotton overseas.

The U.S. ban on trade with Iraq and the U.N.-sponsored general trade embargo helped lower fiscal 1990 U.S. agricultural exports to Iraq by $200 million from a year earlier. Wheat and soybean meal likely accounted for most of the decline. Sunflower oil exports also were down.

For many commodities, including rice, shipments for the year had, for the most part, taken place before the embargo. And lower exports had already been forecast before the August sanctions.

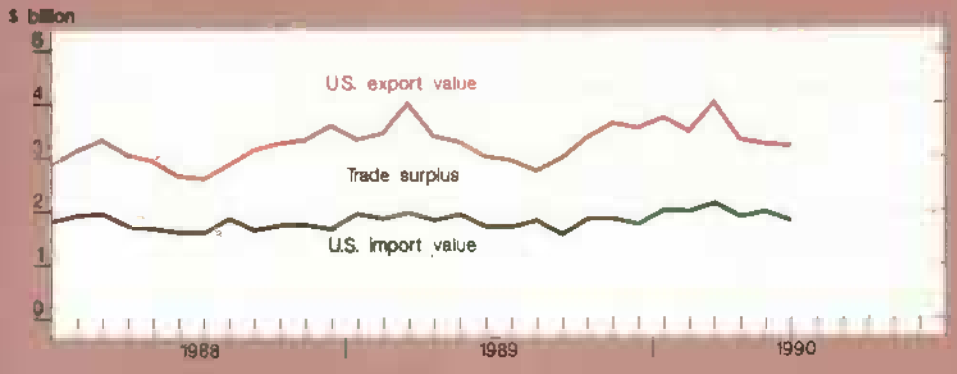
Coarse Grain Exports Highest Since 1981

Stronger demand for U.S. coarse grains by the USSR, Eastern Europe, Taiwan, South Korea, and Mexico in fiscal 1990 probably drove exports almost 9 million tons higher than a year earlier to 69.2 million, the highest since 1981. Strong demand sustained coarse grain prices in 1990, and export value is estimated to have risen almost $800 million to $8 billion.

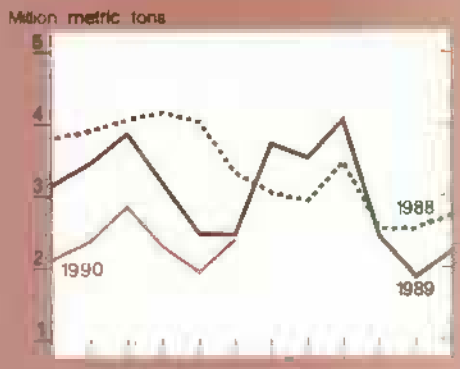
Record corn sales to the Soviet Union during the first 9 months of the fiscal year have kept total grain exports to the Soviets close to 1989 levels, despite a drop in wheat exports. The heavy Soviet presence in the world grain market over the past year, despite larger 1989 production, primarily reflects reduced farm sales of grain to the State. Soviet import demand for grain likely will remain relatively strong despite the bumper 1990 crop.

U.S. Trade Indicators

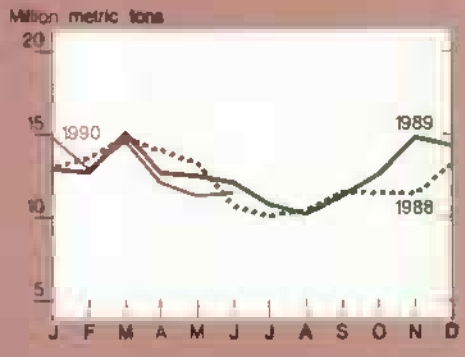
U.S. agricultural trade balance



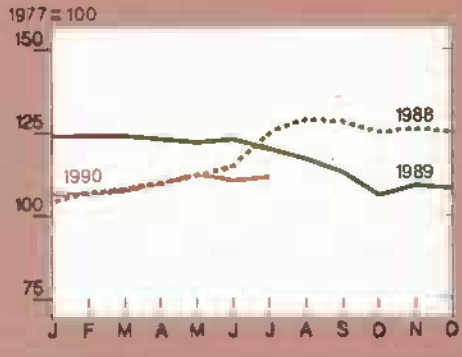
U.S. wheat exports



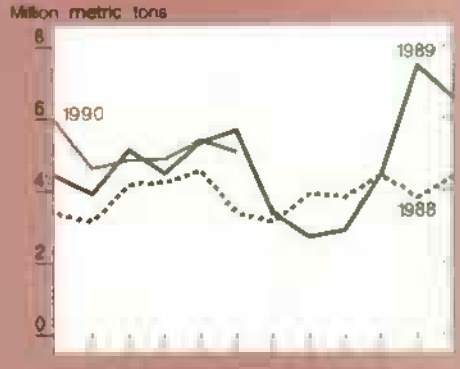
Export volume



Index of export prices

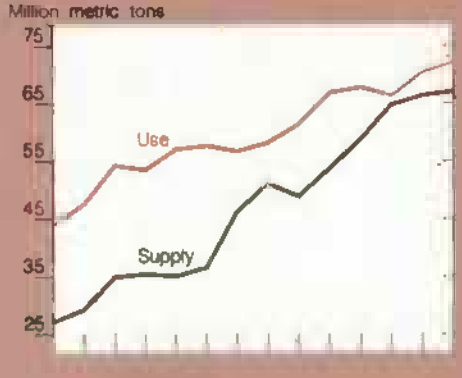


U.S. corn exports

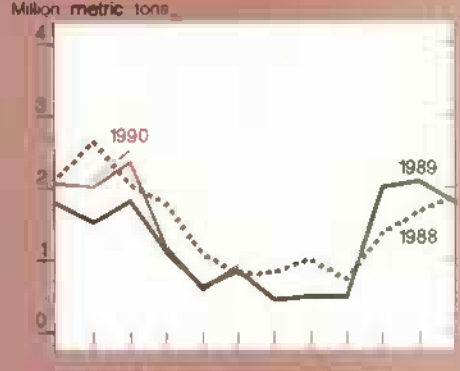


Foreign supply & use of coarse grains

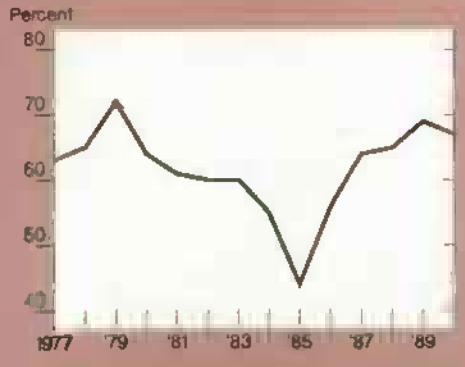
Foreign supply & use of soybeans



U.S. soybean exports

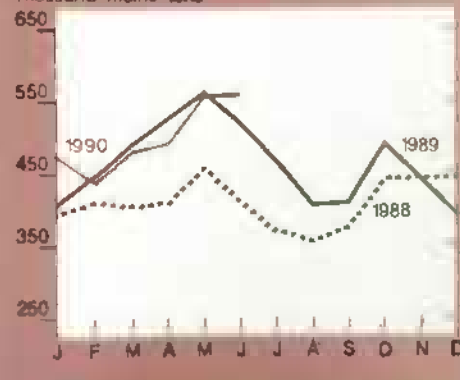


U.S. share of world coarse grains exports[1,2]



U.S. share of world soybean exports[1,2]

U.S. fruit & vegetable exports[3]



[1]Excluding intra-EC trade [2]October-September years [3]Includes fruit juices.

World Agriculture and Trade

Soviet demand for livestock products continues to outpace supplies, due largely to rising wages and heavy retail price subsidies. U.S. meat and dairy sales to the USSR, already at an all-time high, may have benefited from any cutback in Soviet purchases from Eastern Europe.

Growing feed use by Taiwan's pork and poultry industries probably boosted U.S. agricultural exports to Taiwan to a record $1.8 billion in fiscal 1990. Taiwan's GNP and wage gains remain high by international standards. And the currency appreciation that has slowed Taiwan's manufactured exports has encouraged U.S. sales.

Large Mexican purchases of U.S. coarse grains helped offset lower shipments of other products to Mexico in fiscal 1990. Export value probably fell only slightly to $2.8 billion from fiscal 1989. U.S. exports to Mexico rose about $1 billion in 1989, as Mexico's GNP growth doubled and its government sought to control prices and ensure adequate food supplies.

EC Buys More U.S. Cotton

Due mainly to larger cotton exports, U.S. agricultural exports to the EC in fiscal 1990 are estimated to have been $7 billion, about the same as a year earlier. Along with cotton, exports of some high-value products probably increased, but meat exports continued to suffer from the EC's hormone ban.

U.S. cotton exports to the EC rose more than $200 million during the first 10 months of fiscal 1990. West Germany and Italy are the two largest EC customers for cotton, and mill use in the two is expected to continue up.

U.S. cotton exports in fiscal 1990 probably rose $850 million from a year earlier. A tight world market kept prices high, making U.S. cotton more competitive. Supplies were down in major competing countries, including China, Pakistan, and the Soviet Union.

During the first 10 months of fiscal 1990, exports to Hong Kong rose $87 million, largely driven by increased cotton sales. Importers there have relied on the U.S. to make up shortfalls on world markets this year, notably shortages of Chinese cotton. With higher prices as well, the value of U.S. cotton exports to Hong Kong rose 105 percent during the first 10 months of this year.

Animal Product Exports Drop

Exports of U.S. animal products to Japan grew about $900 million annually during the last 2 years, but fell 1 percent during the first 10 months of fiscal 1990. Pork exports have increased, but lower average values for U.S. beef and poultry meat are expected to have offset the gain.

Japanese consumption of imported beef has reportedly fallen short of initial expectations, while U.S. poultry meat exports are facing keen competition from Thailand, Brazil, China, and other new suppliers such as Malaysia, Mexico, and Peru.

U.S. exports of animal products to Mexico fell more than $300 million during the first 9 months of fiscal 1990. Lower exports were reported for a wide range of products, including live cattle, nonfat dry milk, poultry meat, pork, tallow, and cattle hides. *[Stephen MacDonald (202) 786-1821]* AO

Upcoming Economic Reports

Summary Released	Title
October	
11	World Ag. Supply & Demand
17	Agricultural Resources
19	Agricultural Outlook
22	Dairy
	Livestock & Poultry Update
	U.S. Agricultural Trade Update
24	Rice
25	Oil Crops
26	National Food Review

Farm Finance

Record Income Despite Oil Shock

Growth in commodity sales is pushing farm income to record highs this year despite mounting expenses and forecasts of declining prices. Farmers' net cash income is projected to be $59-$63 billion in 1990, about 10 percent above last year. And net farm income is forecast to grow about 5 percent from 1989.

Net cash income equals all commodity sales and direct government payments received in a calendar year minus out-of-pocket costs, while net farm income measures the value of agricultural production plus direct payments, less all costs.

Recent commodity market developments point to lower season-average prices for feed grains, wheat, and milk in 1990/91 than were expected a month ago. However, these changes have offsetting effects on farm incomes, and most of the impacts will be felt next calendar year.

For example, lower corn prices will increase livestock operators' incomes

while trimming corn producers' market receipts. As a partial offset, government payments to both corn and wheat farmers are expected to go up. But, the corn deficiency payments will not be made until calendar 1991.

Projected total cash receipts for this year are 6-8 percent above 1989. Crop and livestock sales are likely to grow by $4-$7 billion each, bringing receipts to $168-$172 billion.

Livestock receipts are up $4 billion from earlier forecasts, while crop sales, direct government payments, and other farm-related income are also up slightly. The jump in the forecast of livestock receipts largely reflects stronger-than-expected milk prices in the first three quarters of the year. The current forecast of gross cash income in 1990 is about $6 billion more than last quarter's forecast.

Net farm income will be up 5 percent from 1989 primarily because the 1989 estimate was revised downward.

Despite the growth of cash income, the forecast of 1990 net farm income remains nearly the same as last quarter, $47 to $52 billion. The reason the forecast did not rise from last quarter is that estimates of two noncash components of farm income are $2 billion less than projected earlier.

The first is the gross imputed rental value of owner-occupied farm dwellings. Farm dwellings are assumed to generate noncash "income" comparable to the rent usually paid for such housing. The inputed rental value estimate is now based on the rent-to-value ratio for urban housing, rather than estimates of user costs.

The second is the value of the change in inventory. Estimates of this year's ouput of some major field crops were lowered from the earlier quarter and more grain was sold out of inventories early in 1990 than anticipated. Although soybean and cotton prices have risen somewhat, corn and wheat prices have fallen. As a result, the price changes did not offset the declines in quantities.

The Agricultural Census: Some Highlights

According to the 1987 Census of Agriculture, about 32,000 farms (1.5 percent of all farms) had sales of $500,000 or more. They reported nearly $52 billion in sales, or about 38 percent of all commodity sales.

These large farms included about 13 percent of the land in farms and accounted for:

- about 70 percent of sales of vegetables, sweet corn, and melons;
- 70 percent of nursery and greenhouse sales;
- nearly 60 percent of poultry and poultry product sales;
- nearly 55 percent of fruits, nuts, and berries sales;
- more than 50 percent of cattle and calf sales;
- about 38 percent of cotton and cottonseed sales;
- nearly 24 percent of dairy product sales;
- some 23 percent of the hog and pig sales; and
- close to 10 percent of grain sales.

Farms with sales of $500,000 or more also used close to 55 percent of the hired labor, 49 percent of the feed, and accounted for 39 percent of total expenses reported by all farms. Of these large farms:

- 30 percent were in the North Central states;
- 32 percent were in the West;
- 33 percent were in the South; and
- 5 percent were in the Northeast.

About 5,600 of the farms with sales of $500,000 or more were in California. They accounted for about 6.8 percent of California farms and reported 74 percent of sales in that state. And they reported 7.6 percent of sales from all U.S. farms. *[Ed Reinsel (202) 786-3310]*

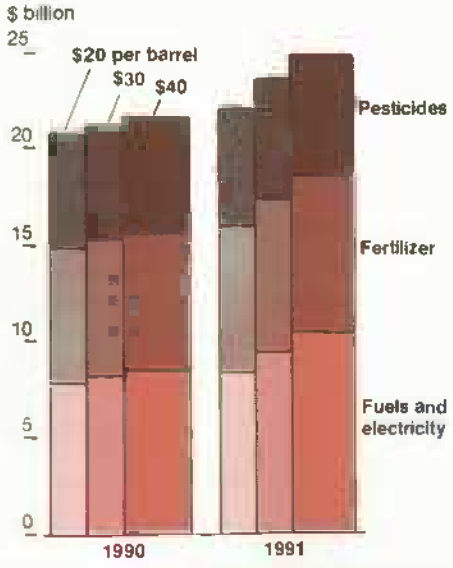
Oil Prices Push Production Costs

Farmers' cash expenses for the year are now expected to be $3 billion higher than projected in July. Ranging from $123 to $127 billion, 1990 cash costs are forecast to show a 1-3 percent gain from 1989.

Forecasts of farmers' fuel expenses rose in August, as the price of crude oil climbed about $10 a barrel following Iraq's invasion of Kuwait. Before the oil price increase, fuel expenses were forecast to rise 5 percent this year anyway. If crude oil averages $30 a barrel for the remainder of the year, farmers' fuel expenses will be 10 percent higher than in 1989.

Effects of the price hike on 1990 fertilizer and chemical expenses are relatively small, but will be more pronounced next year because most application takes place in the spring. Fertilizer expenses are still expected to be down this year, with prices paid for fertilizer averaging about 5 percent less than in 1989. A $10-a-barrel increase in crude oil prices would boost fertilizer and pesticide expenses 2-3 percent in 1991.

Higher Oil Prices Drive Up Farmers' Costs for Manufactured Inputs



Forecasts assumed oil prices of $20, $30, and $40 per barrel.

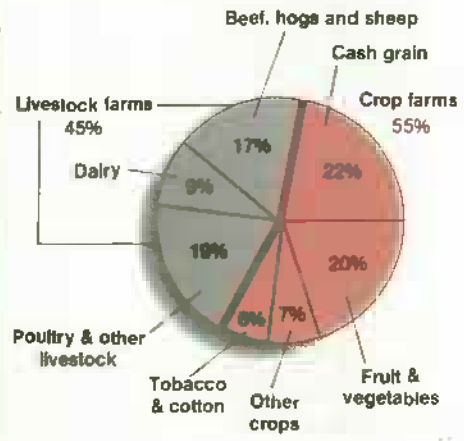
Farm Finance

Only Fruit-Vegetable Farms Will Experience a Drop in Income

Farm type	Crop cash receipts		Livestock receipts		Cash expenses		Net cash income	
	1989	1990F	1989	1990F	1989	1990F	1989	1990F
				$ billion				
Cash grain	30.3	34	3.0	3	31.3	32	9.4	11
Cotton	4.4	5	.1	*	2.9	3	2.4	3
Tobacco	2.4	3	.1	*	2.1	2	.6	1
Fruit-vegetable	17.6	17	.1	*	5.3	5	12.6	12
Other crops	13.8	14	.7	1	12.1	12	3.9	4
All crop	68.5	73	4.0	4	53.7	55	28.9	31
Beef-hog-sheep	5.4	6	40.9	44	44.6	45	7.0	9
Dairy	1.1	1	20.9	22	18.2	18	5.2	6
Poultry and other livestock	0.5	1	17.9	19	6.3	6	13.6	14
All livestock	6.9	7	79.7	85	69.1	70	25.8	30

F = Forecast.
* = Less than $500 million.

Crop Farms Earn Over Half of Net Cash Income



Farm types determined by commodity or commodity group that accounts for 50 percent or more of total farm sales.

Crude oil prices directly affect the costs of manufactured inputs (fuels, electricity, fertilizer, and pesticides) that come from petroleum. If oil prices average about $20 during 1991, farmers' manufactured input expenses would be $22 billion. Increasing the oil price to $30 per barrel adds about $1.5 billion to the forecast, a 6- to 7-percent increase. Fuel costs would be responsible for about two-thirds of the gain.

If the oil price doubles and averages $40 next year, the costs of all manufactured inputs would be 12-13 percent higher. Fuel expenses would climb nearly $1.5 billion, and electricity and fertilizer expenses together would increase about $500 million.

Other items that make up the bulk of cash expenses, such as feed and transportation costs, as well as prices of feeder livestock, are less directly affected in aggregate by oil prices. Manufactured items typically account for 16-17 percent of all cash production costs. Fertilizer takes up 6 percent, pesticides about 4 percent, fuels 4-5 percent, and marketing-storage-transportation only 3 percent.

Feed prices in calendar 1990 probably are averaging more than 4 percent below last year. However, livestock numbers are expected to increase slightly, keeping the forecast of feed expenses about even with last year's $23 billion. Prices of feeder livestock have declined from earlier forecasts, but are still 3 percent above last year and support a modest increase in livestock expenses.

In addition to increased costs for fuel, marketing, storage, and transportation, higher farmland taxes and rents also are contributing to this year's higher expenses. Forecast total production expenses rose a little less from earlier projections than cash expenses because the estimate of depreciation charged for farm buildings and equipment dropped by $1 billion.

Crop and Livestock Sales Swell

The outlook for wheat and corn sales in calendar 1990 is essentially unchanged from when last quarter's income forecasts were made. Food and feed grains are expected to provide $27-$31 billion in cash receipts. Wheat prices are expected to average more than 20 percent below last year, but a 35-percent gain in production likely will keep cash receipts at or above last year's $7 billion.

Corn production is expected to be up almost 8 percent from the 1989 crop. Calendar year corn prices are forecast to average 2-5 percent below 1989, and feed crop cash receipts are expected to be $2-$4 billion less than last year.

The projected annual average price of milk rose about 2 percent from last year's. Cash receipts for all dairy products are $3 billion higher than earlier income forecasts and are now expected to surpass 1989 receipts.

The outlook for 1990 soybean and cotton cash receipts improved as the summer progressed. Production estimates were revised downward due to fewer planted acres of soybeans, resulting in higher price forecasts. Rather than dropping, soybean receipts are now expected to be about the same as in 1989, while cotton cash receipts are expected to rise $1 billion.

Livestock Farms To Gain the Most

In most years, 60-65 percent of all farms qualify as livestock specialty operations, while the remainder sell more crops than livestock or livestock products. Net cash income is more likely to be evenly divided between crop and livestock farms this year than in 1989, when farms specializing in crops had higher net

incomes. In general, more livestock farms are small, part-time operations.

Net cash incomes of both crop and livestock farms are expected to be higher this year than in 1989. Crop farms are forecast to experience a 5- to 10-percent increase, while livestock farms' net cash income is forecast to be up 10-15 percent. Cash expenses of livestock farms will be up less than 2 percent this year, while costs are expected to rise 2-3 percent for crop farms.

The outlook for specific types of farms is not the same as for the sector as a whole. Although most farms produce more than one commodity, a single commodity or group of commodities usually accounts for most of the operation's cash receipts. "Type of farm" refers to the commodity group that accounts for 50 percent or more of total farm sales.

In order to distribute forecasts of expense and income items among farm types, it is assumed that shares do not change from year to year, and that farms do not shift from one type group to another. These estimates are subject to more fluctuation than the aggregate estimates because of these assumptions and because they depend more on the accuracy of the forecast for a particular crop.

Beef-hog-sheep operations account for about 50 percent of all farms, while nearly 20 percent are cash grain farms, and 10 percent are dairy operations. Cash grain farms collect at least 75 percent of receipts for corn, wheat, and soybeans, as well as the other feed crops, food grains, and oil crops. Beef-hog-sheep farms also produce crops and collect 10 to 15 percent of cash grain receipts.

Fruit-vegetable farms account for 95 percent of the fruit and tree nuts sold, but sell less than 80 percent of all vegetables. Poultry and milk sales are almost exclusively from poultry and dairy operations.

Cash grain farms typically collect about 40 percent of total crop cash receipts and 80 percent of feed grain cash receipts.

This year, cash grain farms are likely to realize 60 percent of the $4-$7 billion higher crop receipts forecast for all farms. Cash grain farms usually receive over 50 percent of total direct government payments. Despite a drop in direct payments this year, net cash incomes for cash grain farms are still forecast to rise more than 15 percent.

Tobacco and cotton farmers also are likely to see higher crop sales but lower direct payments than last year. Fruit-vegetable and other crop farms are expected to have less growth in receipts, and their net income is projected to decline slightly this year.

All the major types of livestock farms will benefit from the $4- to $7-billion growth in livestock cash receipts forecast this year. Farms that produce beef cattle, hogs, or sheep usually get 50 percent of all livestock receipts, while dairy farms collect 25 percent, and other livestock (including poultry) about 20 percent. This year's gains probably will be distributed in these proportions.

Livestock operations receive about 35 percent of direct government payments, usually under feed grain programs. Payments to dairy farms and beef-hog-sheep farms will be down in 1990, and their expenses are forecast to rise only a bit. And with livestock receipts expected to increase 5-10 percent, both dairy and red meat operators stand to experience substantially higher net cash income than last year. Net cash income is forecast up slightly for poultry and other livestock producers. *[Diane Bertelsen (202) 786-1809]* AO

Dynamics of Oil & Ag Input Prices

World crude oil prices rose 50 percent within 3 weeks after Iraq invaded Kuwait. Agricultural chemical and fertilizer prices will increase in coming months as a result, but by far less than the ultimate increase in oil prices, according to a nonstructural, time-series model.

The model captures the historical relationships between monthly crude oil, farm chemical, and fertilizer prices. Model simulations suggest that agricultural chemical and fertilizer prices would rise by about one-fourth of the percentage increase in crude oil prices, and that the increases would be spread over 24 to 28 months.

However, other factors aside from oil prices will influence input prices in coming months. Farmers' expectations of crop and livestock prices will help determine acres planted next year and the demand for inputs. All these factors will further influence chemical and fertilizer prices.

The statistical model, which covered January 1962 to June 1990, estimated the relationships between the monthly prices of domestic crude oil, industrial chemicals, agricultural chemicals, and fertilizer. A 1-percent rise in crude oil price was then imposed on the model to reveal how agricultural chemical, fertilizer, and crude oil prices have historically interacted.

A 1-percent price increase was chosen because it is not known how high world oil prices will ultimately go. Patterns from this shock also provide a convenient base from which to extrapolate patterns once the present oil price hikes stabilize.

The trends captured from the 28 years of monthly data span the influences of OPEC's price runups in 1973-74 and

Farm Finance

About the Model:

A vector autoregression (VAR) model was estimated describing the relationship of the price of crude oil to its own past, as well as to past prices of two chemical groups and fertilizer. The model summarizes how the four prices have moved together on a monthly basis for the last 28 years.

The model was shocked with a 1-percent rise in the crude oil price. Because the model is linear, the plotted shape of a response variable's reaction to a shock would not change with changes in the magnitude of the shock. Rather, only the graph's scale would change. The four price indices were modeled in natural logarithms.

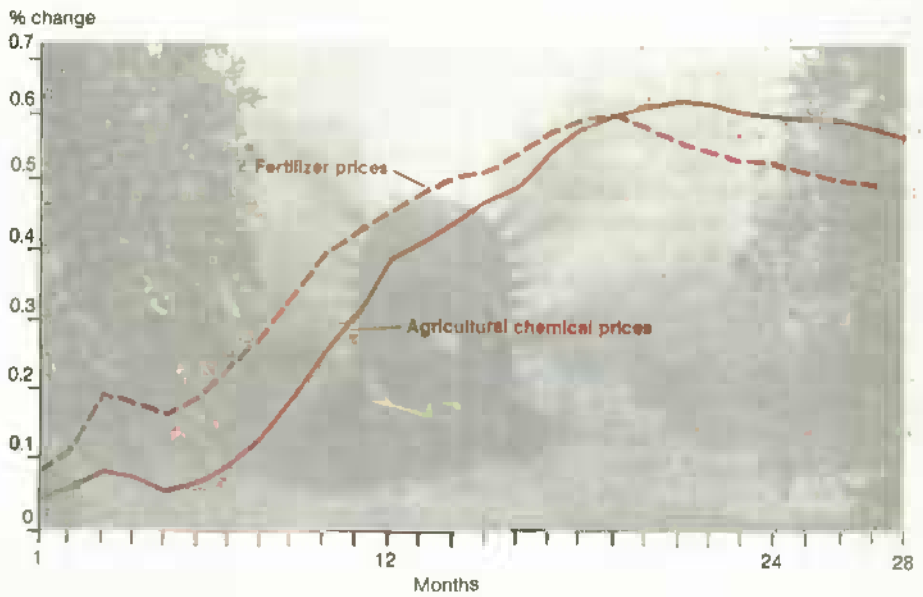
The dynamic multipliers were calculated using the technique discussed in the December 1988 *AO*. By definition, each equation is a function of a specific number of lags of all modeled variables—here the four prices. So a one-time initial shock puts all equations into motion.

The shocks to, and impulses in, the model's prices are percent changes, so each dynamic multiplier is the sum of the response variable's (agricultural chemical or fertilizer prices) significant nonzero responses divided by the corresponding cumulative change in the shock variable—crude oil prices (multipliers are 0.24 for agricultural chemical prices and 0.25 for fertilizer prices).

Producer price indices (PPI's) compiled by the U.S. Bureau of Labor Statistics were used. The PPI for crude petroleum served as the crude price. The PPI's for industrial chemicals and agricultural chemicals served as the industrial and chemical prices. The PPI for mixed fertilizers represented the fertilizer price.

Note that the PPI was used for domestically produced crude petroleum, and not the index of crude prices on the world market. Yet the price of domestically produced crude is expected to move and has historically moved (especially since the early 1970's) in tandem with world crude prices.

Steeper Crude Oil Prices Will Boost Input Prices



Percent change from benchmark price indexes. Price increases based on a statistical model that estimates effects on various input prices of a 1-percent increase in crude oil prices in the first month. All points are statistically significant at the 5-percent level.

1979-82. They indicate how crude oil, industrial chemical, agricultural chemical, and fertilizer prices have dynamically interacted from a shock in crude oil prices, and for how long such a shock has affected the four prices.

The effects on agricultural chemical prices were immediate, although slow to gain strength, but then lasted for over 2 years. The increases began accelerating after 6 months, posted the largest gain at 21 months, and then continued up at slower rates for another 7 months.

Trends over the 28 years indicate agricultural chemical prices would rise 0.24 percent for each 1-percent rise in crude oil prices. So August's 50-percent rise in crude oil prices, for example, would be expected to exert enough pressure to generate a 12-percent rise in agricultural chemical prices over the following 28 months.

Fertilizer price response patterns are similar. Fertilizer prices take about half a year to gain strength, then continue up for 22 more months. Over this response period, trends indicate fertilizer prices would rise 0.25 percent for each 1-percent rise in crude oil prices. So, in the absence of offsetting demand forces, August's 50-percent hike in crude oil prices may ultimately produce about a 13-percent rise in fertilizer prices.

According to long-run historical dynamic patterns, agricultural chemical and fertilizer price responses appear to take more than 2 years to play themselves out. That is, when crude oil, agricultural chemical, and fertilizer prices have historically moved together, they have done so in lengthy patterns of 2 or more years.

Why So Long?

These lengthy effects reflect the time needed for the oil and oil-related sectors to interact and adjust to each other. This shows the time historically required for both the production and demand sides of the market to adjust. However, the model used to generate the results presented here cannot shed light on the reasons why the prices move as they do.

In responding to the previous shocks, much time was needed for oil-sector producers to plan, invest in, and then operate new refineries to expand petroleum product output. Further, except for the formerly uneconomical wells that were easily uncapped when crude prices rose, searching and drilling for new reserves also took time.

These and other examples of time-intensive adjustments have spilled over to oil-based agricultural input prices in the past and may have accounted for the lengthy price interactions observed here.

In light of the recent increases in crude oil prices, prices for the agriculture sector's petroleum-based inputs are expected to rise. Agricultural chemical and fertilizer prices are two such examples. If the unfolding situation is not too different from the long-run historical trends, the effects on these prices from recent crude oil price increases are expected to be far less than one-for-one. [Ronald A. Babula (202) 786-1785 and Agapi Somwaru (202) 786-1812]. AO

Growth & Inflation Prospects Worsen

Two recent events have significantly changed the domestic economic outlook: the annual GNP revisions released in late July, and the oil price shock in August. Both factors led to a downward adjustment in the prospects for real growth, but the GNP revisions affected the growth outlook more than the rising oil prices. The expectation of higher inflation, however, resulted primarily from the oil price increases.

Commerce Department revisions of the inflation-adjusted GNP growth estimates for the past 13 quarters were predominantly downward. Specifically, real growth rates were revised downward for 12 of the 13 past quarters. On an annual basis, real growth in 1989 was revised down from 3.0 to 2.5 percent.

The revisions lowered prospects for real GNP growth in 1990 by 1 percentage point. And they suggest that the economy's potential to grow is lower than previously thought.

The decline in the 1987 real GNP value did not come from one particular sector. However, downward revisions in both nonresidential and residential investment were significant for the 1988 estimates, and almost half of the $26.4 billion downward revision for 1989 occurred in personal consumption expenditures.

The revisions show that exports were the major source of economic growth. For all 3 years, export volumes were revised up; net exports ended slightly down, though, due to moderate increases in import estimates.

For 1988, the estimate of overall personal consumption was increased slightly due to upward revisions in durable and nondurable goods purchases. However,

for 1989, a large downward revision in service consumption reduced the personal consumption growth rate from 2.7 to 1.9 percent—the lowest since 1982.

Personal consumption, the largest portion of GNP, grew slower than overall GNP, especially in 1989. Nonresidential investment was a major source of growth in 1988, with most of the increase resulting from purchases of producers' durable equipment rather than structures.

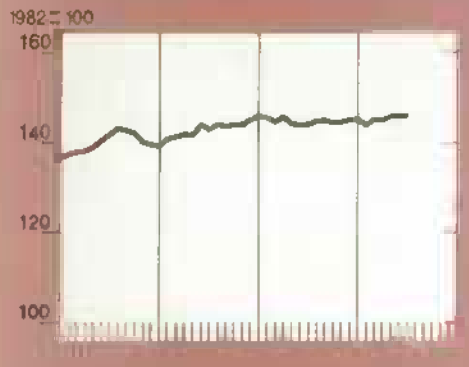
Under the normal monthly revision process, estimates released at the end of August revealed that purchases of final goods and services in the second quarter of this year were up more than originally reported in July. Larger net exports, increased nondurable goods expenditures, and smaller accumulation of inventories suggest overall demand was stronger than the preliminary numbers suggested.

Investors Unsettled By Oil Price Jump

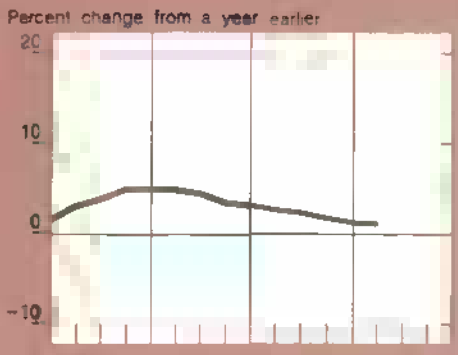
This past January, a sharp cold snap pushed oil prices to a high of $22 per barrel (West Texas intermediate crude), up from $14 in October 1988. Between this January and June, though, prices slipped

General Economy — General Indicators

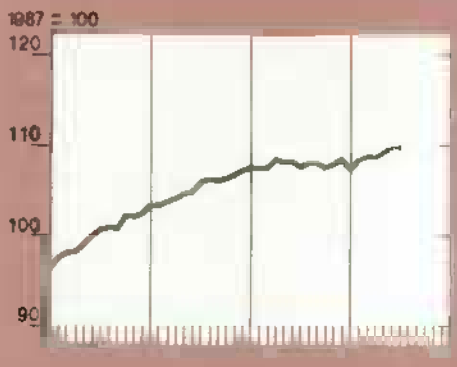
Composite leading economic indicators



Gross national product[1]

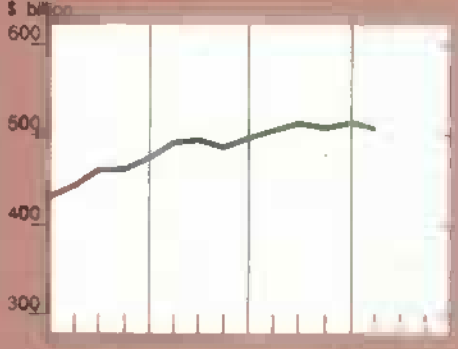


Industrial production

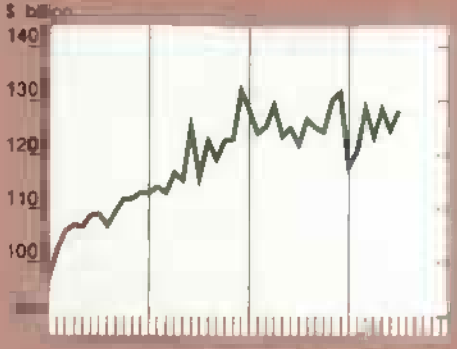


Disposable income and consumption expenditures[2]

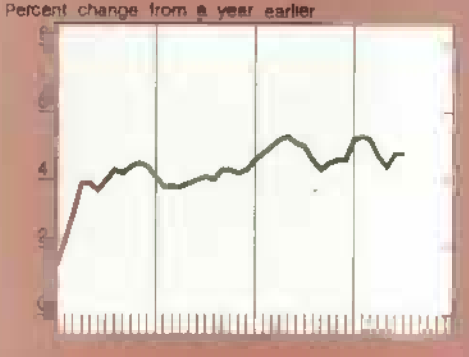
Nonresidential fixed investment[2]



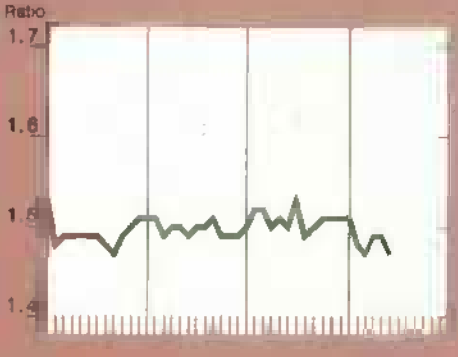
Manufacturers' durable goods orders[3]



Consumer price index

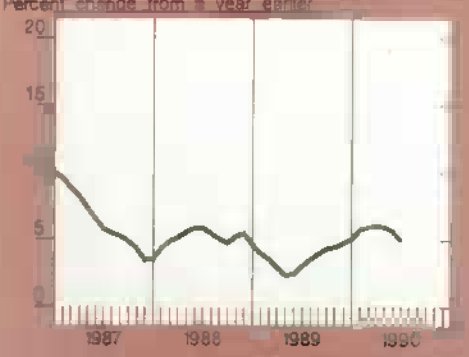


Inventory/sales[4]

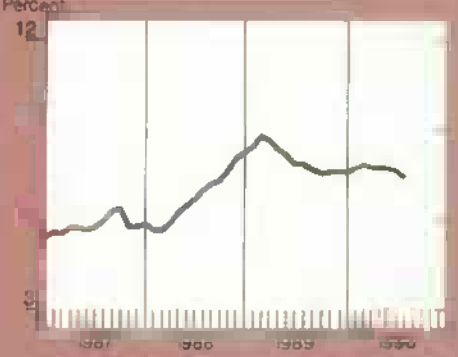


Unemployment rate[5]

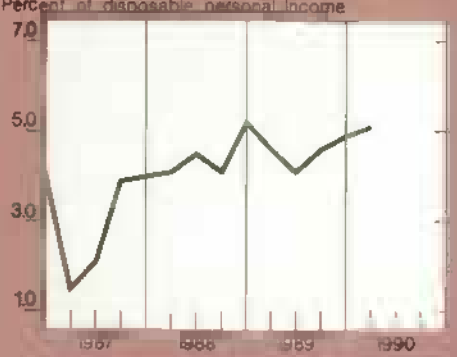
Money supply (M2)



3-month Treasury bill rate



Savings rate[6]



[1]Percent change from a year earlier in 1982 dollars. Seasonally adjusted annual rates. [2]Billions of 1982 dollars, seasonally adjusted at annual rates. [3]Nominal dollars. [4]Manufacturing and trade, seasonally adjusted, based on 1982 dollar. [5]Seasonally adjusted. [6]Calculated from disposition of personal income in 1982 dollars, seasonally adjusted at annual rates.

Sources: U.S. Dept. of Commerce, U.S. Dept. of Labor, and the Board of Governors of the Federal Reserve System.

to nearly $17. Then, the threat of a disruption in oil supplies due to events in the Middle East caused the price of West Texas crude to jump to more than $30 in the third week of August.

Financial markets reflected investors' uncertainties. While short-term interest rates fell slightly from mid-July to the end of August, long-term Treasury bond rates jumped from about 8.5 to 9.3 percent.

The stock market also reacted negatively, with broad index values falling about 14 percent. Gold prices increased from $370 to $415 an ounce, and the exchange value of the dollar fell about 2 percent. Foreign stock markets, particularly Japan's, also posted steep drops. By the last week of August, the price and rate movements had moderated somewhat, but investors remained nervous.

Looser Money Policy?

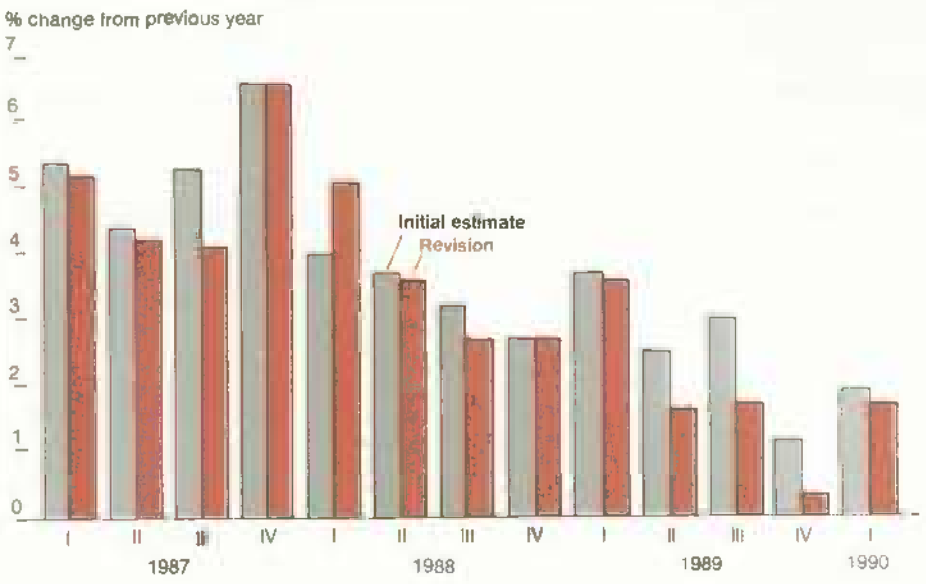
Over the past 2 years, the Federal Reserve's monetary policy has come under increased scrutiny. Even before the oil price jump, the Fed faced a difficult policymaking environment. Real economic growth was slower than originally thought and inflation was creeping upward. Increased pressure was being placed on the Fed to ease monetary policy and lower interest rates to promote higher real growth.

The Fed's job has become much more difficult with the oil price jump and the resulting expectations of higher inflation. A tradeoff exists. Inflation may be pushed even higher if the Fed tries to boost real growth in the short run through faster money growth.

Subsequent increases in inflation would put upward pressure on interest rates, particularly long-term rates. This in turn would retard interest-sensitive spending, including spending on new homes and equipment. This would dampen long-term growth prospects.

With oil at $30 a barrel and no loosening of monetary policy by the Fed, real GNP growth would be as much as 1.5 percentage points lower in 1991, according to USDA research.

Estimates of Real GNP Growth Are Revised Downward



Annual percentage rate.
Source: U.S. Department of Commerce.

At the same time, the oil price increase would cause inflation to rise substantially. With $30-oil, consumer price inflation would increase from 4-4.5 percent in 1990 and 1991 to 5-5.5 percent for each year. Similarly, producer price inflation for 1990 and 1991 would advance from 3.5-4.5 percent to about 6 percent in 1990 and 5 percent in 1991.

Despite potential long-term tradeoffs associated with a short-term monetary loosening, many analysts believe that the Fed will ease policy somewhat if economic growth slows. All of these factors suggest that real growth for 1990 will be very slow, averaging between 1 and 1.5 percent.

Over the next year and a half, real growth is expected to range between 1.5 and 2.5 percent at an annual rate. Fourth-quarter 1990 likely will be the weakest period, and by the beginning of 1991, real growth should pick up.

Fiscal Outlook Is Clouded

The outlook for fiscal policy is greatly complicated by the sluggish economy and the U.S. military involvement in the Persian Gulf. A weakening economy makes tax increases, in particular, less appealing. Military expenditures associated with the Middle East situation are estimated at around $2.5 billion for August and September and as much as $15 billion in fiscal 1991. This unanticipated increase in spending stands to boost the federal budget deficit for fiscal 1991.

Even before the Gulf crisis, the White House and Congress were at odds over ways to cut the deficit. In mid-July, the deficit for fiscal 1991 was projected to be $169 billion.

Because the projected budget deficit exceeds the Gramm-Rudman-Hollings target of $64 billion by more than $10 billion, a sequestration of funds necessary to reach the target is required by law, unless a budget agreement is reached to cut the deficit or the law is changed.

Steps have been taken to implement the sequestration. Nondefense spending would face across-the-board cuts of 38 percent, while defense spending (excluding personnel) would be cut by 42 percent.

It is extremely difficult to evaluate the effect of fiscal policy in the face of such uncertainty. In the short run, larger expenditures would promote higher real activity. And a reduction in the budget deficit, through reduced expenditures or higher taxes, would initially dampen economic growth.

All of these factors mean the economy has weakened, but will continue to grow very slowly. The growth will have to come from improving net exports and continued expansion in consumer spending for services, which account for about one-third of GNP. However, recent monthly data suggest some slippage in the strength of net exports.

As long as service expenditures continue to grow, the overall economy likely will continue to realize positive growth rates. However, aside from net exports and services, the other sectors of the private economy—consumer goods and investment—are not growing. *[John Kitchen and Elizabeth Mack (202) 786-1782]* AO

Agriculture in a World of Change

USDA's annual outlook conference, set for November 27-29, 1990, will explore the 1990 farm bill, GATT negotiations, the outlook for major commodities, and how recent dramatic changes abroad will affect farmers, consumers, and global trade.

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What If There Is No Farm Bill?

The Food Security Act of 1985 (as amended) expires at the end of the 1990 crop year and, if it is not extended or replaced, permanent legislation will take effect in the 1991 crop year. This would produce sharp increases in some price supports and, consequently, some market prices would double.

A reversion to permanent legislation also would shift most income support from deficiency payments to higher government-set prices. To maintain the higher price supports for the affected commodities, the Commodity Credit Corporation (CCC) would have to acquire and hold larger stocks, or tight production quotas would be required. Government costs of farm programs could increase considerably.

Permanent legislation consists of all statutes that would be in effect if the 1985 Act expired and no new legislation was passed to replace it. These statutes include the Agricultural Adjustment Act of 1938 (as amended), the Agricultural Act of 1949 (as amended), the CCC Charter Act (as amended), and the Agricultural Trade Development and Assistance Act of 1954. Also, portions of many subsequent acts have added to what is called permanent legislation.

Parity Would Play a Role

Permanent legislation contains general and specific authorities. The general authority given to the Secretary of Agriculture is very broad, permitting him to establish support for any crop, without specifying the mechanics. Under the general authority, the Secretary would be able to continue some activities when their specific authorities under the 1985 Act lapsed. However, he would also

their specific authorities under the 1985 Act lapsed. However, he would also have the discretionary authority to drop activities.

Permanent legislation would require price supports, generally at 50-90 percent of "parity" (a commodity's purchasing power in 1910-1914), for cotton, milk, feed grains, peanuts, and wheat. The required minimum support levels exceed current support rates for wheat, feed grains, peanuts, cotton, and milk by 24 to 250 percent.

Under permanent legislation, the actual level of price support for wheat, cotton, and peanuts would depend on whether the Secretary proclaimed marketing quotas to control supplies and on whether two-thirds of producers accepted the quotas in a special referendum. If approved, quotas would become mandatory for all producers. Paid land diversion programs also would be authorized for wheat.

Under the permanent legislation, most income support would be provided by keeping up market prices without regard to market supply and demand. In contrast, present programs for wheat, feed grains, cotton, and rice provide income support primarily through deficiency payments, which minimize interference with market forces.

Deficiency payments bridge the gap between target prices, which determine

Dairy, Wheat, and Cotton Support Would Rise the Most Under Permanent Legislation

Commodity	Unit	Current programs		Permanent legislation		
				Support prices		Parity price (Jan. 1990)
		Loan rate	Target price	Minimum	Maximum	
		For 1990 crops				
Wheat	$/bu.	1.95	4.00	5.01 1/	6.94	7.71
Corn	$/bu.	1.57	2.75	2.73	4.91	5.45
Upland cotton	¢/lb.	50.27	72.90	91.00	126.00	140.00
Rice	$/cwt	6.50	10.71			20.70
Soybeans	$/bu.	4.50		0	10.98	12.20
Peanuts	¢/lb.	31.57 2/		39.08	46.89	52.10
Refined beet sugar	¢/lb.	21.54 3/		0	65.52	72.80
Raw cane sugar	¢/lb.	18.00 3/		0	51.03	56.70
Milk	$/cwt	10.10		17.68	21.21	23.57 4/

1/ Minimum support level applies only to grain certified for marketing in domestic markets, otherwise there is no minimum support level. 2/ Loan rate for quota peanuts only, loan rate for other peanuts is 7.49 cents. 3/ Support levels for 1989 crop, sugar price support program for 1990 has not been announced 4/Parity equivalent for manufacturing grade milk.

the degree of income support, and the higher of market prices or the loan rates. Loan rates serve as price floors for participating farmers. Loan rates for wheat, feed grains, cotton, and rice are generally tied to a moving average of past market prices. Thus, under current legislation, market forces are critical in setting prices, but not the level of income support (i.e., target prices).

But under permanent legislation, the CCC would raise market prices to the higher minimums by acting as a buyer of last resort. The minimum required prices under permanent legislation would be 99 percent of the current corn target price and about 125 percent of the current wheat and upland cotton targets.

Permanent legislation would present some administrative problems, such as apportioning national acreage allotments to individual farms regardless of their status under current programs. This process would be complicated by the large number of farm reorganizations that have occurred since allotments were last calculated for each crop.

Features Would Vary by Commodity

Wheat—The program would operate with acreage allotments. Marketing quotas could be announced to control supplies under certain conditions. Under the permanent legislation, a national acreage allotment must be announced by April 15 (for example by April 15, 1991, for the 1992 crop). Congress enacted legislation that suspended these provisions for the 1991 wheat crop.

Allotments would be made to individual farms. Farm allotments for 1991 would be based on allotments in 1977—the last year for which they were updated—factored upward or downward to reflect the change in the national acreage allotment between 1977 and 1991. Also on April 15, the Secretary's determination of the need for quotas would be announced and, if a quota were proposed, a referendum would be held by August 1. If approved by two-thirds of eligible producers, quotas would be mandatory for all producers.

Also, under the quota, a marketing certificate program would provide support levels that differ from the loan rate for wheat sold for domestic food uses and export. Wheat designated for domestic food use would have to be supported at 65-90 percent of parity, and all other wheat, including exports, could be supported at levels up to 90 percent of parity.

Producers complying with the quota would receive direct income payments via the certificates on the portion of their quota that went for domestic food uses and exports. Certificates would be financed by domestic food processors and exporters. They would buy certificates at a price equal to the difference between the loan rate and the support price. Proceeds from certificate sales would go to farmers.

If quotas were rejected, producers would not be bound to their acreage allotments. There would be no marketing penalties or certificate payments. Price support at no less than 50 percent of parity would be provided to those producers who voluntarily stayed within their allotments. Price support at no more than 50 percent of parity could be offered to farmers who planted in excess of their allotments, but the Secretary would not be required to provide support for those producers.

If the Secretary did not propose wheat marketing quotas, permanent statutes provide that price support (75-90 percent of parity) would be available to farmers who planted within their wheat acreage allotments. No wheat marketing certificates would be issued, and production controls would not be mandatory.

Feed grains—Corn prices to program participants would be supported at 50-90 percent of parity. Other feed grains (sorghum, barley, and oats) would be supported at levels proportional to their relative value as feeds. Because feed grains do not have acreage allotments under permanent legislation, as do wheat, cotton, tobacco, and peanuts, the only potential to control supply is through changing the support price.

Program benefits and costs would increase for feed grains, even though the minimum support price would be about the same as the current target price. That's because there would be no specific provision for supply control.

Cotton—Like the permanent wheat program, the permanent upland cotton program would involve acreage allotments,

Agricultural Policy

marketing quotas, and a referendum. The national acreage allotment could not be less than 16 million acres, considerably above the 12 million acres planted in 1990. If a referendum were proposed and passed, support would be 65-90 percent of parity, with penalties equal to 50 percent of parity for production from acreage in excess of the allotments.

If a referendum were proposed and rejected, support at 50 percent of parity would be provided to farmers who voluntarily planted within their allotments. If marketing quotas were not announced, price support would range from 65 to 90 percent of parity for those planting within their allotments. Price support could be made available to those planting over their allotments, but no more than what would go to those who stayed within their allotments.

No specific price or production control program for extra-long staple cotton would be authorized under permanent legislation. The Secretary may be able to operate a price support program for extra-long staple cotton under the general authority provided by permanent legislation, but a program would not be required.

Rice—No specific price support or production control program would be authorized under permanent legislation. The Secretary may be able to operate a price support program for rice under his general authority, but it would not be required.

Dairy—The price of milk would have to be supported at 75-90 percent of parity. Marketing orders would be unaffected by expiration of the 1985 Act. There would be no provision for output control. The implication is that there would be a massive buildup of stocks or subsidized milk sales.

Peanuts—The legislation includes allotments and a marketing quota, which if approved, would result in support at 75-90 percent of parity for farmers who stay within their allotments. If the quota were rejected, anyone could grow peanuts, but only allotment peanuts would be supported, and at only 50 percent of parity. The peanut marketing quota is either the previous 5 years' average harvest or the harvest from a minimum of 1.61 million acres, which about equals the actual 1985/86-1989/90 average acreage.

Sugar—The Secretary would have discretionary authority to operate a support program for beet and cane sugar, but prices may not be supported at more than 90 percent of parity. No program is required.

Soybeans—The Secretary would have discretionary authority to operate a nonrecourse loan and purchase program for soybeans, but, again, no program is required.

Tobacco—The tobacco programs currently operate under permanent legislation, so there would be no change.

Grain reserves—The authority to operate the Farmer-Owned Reserve (FOR) would continue.

Domestic sales of CCC-owned stocks—The minimum resale price would be 115 percent of the support rate plus reasonable carrying charges. If a grain reserve is in effect, the resale minimum for wheat and feed grains would be not less than 110 percent of the applicable release price. Because the permanent legislation likely would increase production, the chances that market prices would rise above the release prices are low.

Payment limitation—There would be no payment limitation.

What Would Happen?

The effects of permanent legislation for program commodities would come from higher support prices and from the expiration of the authorities for voluntary acreage reduction. The incentives to produce wheat, feed grains, cotton, and milk would be increased, while the incentives to produce other commodities would decline or not change.

Consequently, acreage would shift to the crops with the higher price supports, especially if quotas were rejected. Production of these crops would increase. Since market prices would be propped up through the nonrecourse loan program, government-owned stocks would jump, or stock disposal subsidies would be required.

The higher prices in the U.S. would allow other countries to capture markets by undercutting these prices, unless the CCC stocks were sold abroad through export-subsidy programs. Border protection in the form of tariffs or quotas would be required to maintain domestic prices above world prices, as is presently the case for sugar and dairy products. *[Robert Green (202) 786-1689, Randy Weber (202) 447-3391, and Lorna Aldrich (202) 786-1880]* AO

Upcoming Releases from USDA's Agricultural Statistics Board

October

2 Egg Products
3 Poultry Slaughter
5 Celery
Dairy Products
10 Vegetables
11 Crop Production
15 Turkey Hatchery
16 Milk Production
19 Catfish
22 Cattle on Feed
Cold Storage
Livestock Slaughter
25 Eggs, Chickens, & Turkeys
30 Peanut Stocks & Processing
31 Agricultural Prices
Rice Stocks

The Feed-Livestock Nexus

In this article, the authors step back from formal quarterly forecasting work to take a look at how U.S. livestock producers would respond to a sustained 10-percent drop in feed costs over an 11-year horizon.

Using an econometric model, they find that consumers would buy more meat for less money, while pork and beef producers would have higher net returns. But poultry producers' net returns would ultimately slip after a few years of above-normal profits.

The framework here can be used to trace the effects of any fundamental change that would shift feed costs, including any possible changes to the feed grain program for the farm bill.—Ed.

Biology Governs Producers' Responses

The short-run effects of sustained lower feed prices in the livestock and poultry sectors differ from the long-run effects because the lengths of the animals' reproductive cycles differ. Biology also determines the feed mixtures and the degree that a feed-cost change would affect producers' profitability. In the short run, results are intuitive. A reduction in feed prices gives all producers the incentive to boost output.

However, the long-run responses are more complex. Beef and pork production would be higher than otherwise by the end of the period. But broiler output would increase at a slower rate by the end of the 11 years.

In the first several years, broiler producers respond relatively quickly to lower feed costs and expand output. At the same time, beef production declines as producers retain breeding females to expand the herd.

Thus, broiler growers take advantage of higher meat prices when beef output declines, and expand chicken production more rapidly. However, when the expanding beef herd finally begins to increase cattle slaughter, the expanding supplies of meat pressure broiler prices lower, forcing broiler production to increase more slowly than if feed costs had remained higher.

These results occur mainly because of the differing lengths of reproductive cycles. Cattle require over 2 years from when a producer decides to breed an animal until the resulting offspring can be slaughtered. Cows normally produce only one calf per year. And, if that calf is retained to expand the breeding herd, beef production will slip that year. Several years pass from the first signal to expand beef production until the expansion is realized.

Hog production can expand more quickly. Sows generally farrow twice a year and produce on average over 14 offspring per year. Pork production may be reduced slightly in the very short run as the sector expands. But, within a year, hog farmers can react to brightening profit prospects and produce more pork.

Broiler production has a separate breeding flock that can produce about 223 eggs per bird each year. So, expanding young chicken output does not require holding birds back from slaughter; production can respond sharply within a year. The process for turkeys is similar although slightly slower.

Livestock producers also respond differently to changes in feed costs because their cost and industry structures differ. For cow-calf producers, feed costs are about 35 percent of total costs. Over 70 percent of their feed costs are for forage. Feed grains and protein supplements account for most of the remainder.

As feed costs drop, feedlot operators increase their demand for feeder cattle. So, cow-calf suppliers will see, at least initially, higher prices for feeder stock. For cattle feedlot operators, feed costs are about 20 percent of total costs, while calves are over 60 percent.

Feed accounts for about 55 percent of hog producers' total costs, the largest for any livestock producer. Broiler and turkey producers' feed costs are about 40 percent of their total wholesale costs. Poultry production decisions are largely made at the processor level, and the birds are mostly raised in growout facilities under contract.

Special Articles

A Cautionary Note Is Needed

To generate the results presented here, two scenarios were estimated: a benchmark and the low-feed cost alternative. The benchmark solution was simulated for 11 years using constant feed costs. An alternative scenario was simulated for the same period in which feed costs (corn, soybean meal, and hay prices) were cut by 10 percent for the whole period.

The accompanying graphs show the results of the alternative scenario in terms of percentage changes from the benchmark solution. All other factors, such as technology, consumer tastes, industry structure, and macroeconomic conditions were assumed constant for both scenarios. The first year was deleted because it was used as a base.

These results show that a sustained 10-percent drop in feed costs would benefit beef and hog producers more than poultry growers. Beef and pork consumption would gain largely at the expense of poultry. But these changes are relative to what would have happened if feed costs had not dropped.

For example, both simulations show poultry output growing over the entire period, but the growth was slower in the simulation with lower feed costs. Per capita beef consumption declined in the benchmark simulation, but remained about flat in the simulation with lower feed costs.

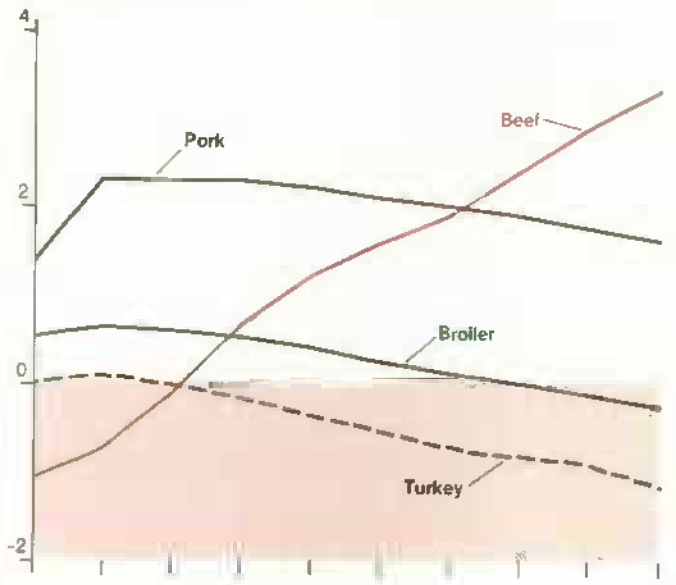
Beef, Pork Output Gain the Most

In the simulation with lower feed costs, beef production initially declines but returns to the benchmark by the fourth year, as producers hold back animals from slaughter to build the herd. Steer slaughter increases less than 1 percent in the first 2 years of the simulation as lower feed costs promote increased feeding and faster weight gains. The increase is not enough to offset the decline in cow, bull, and heifer slaughter. But by the fifth year, increased cattle numbers raise production nearly 1 percent.

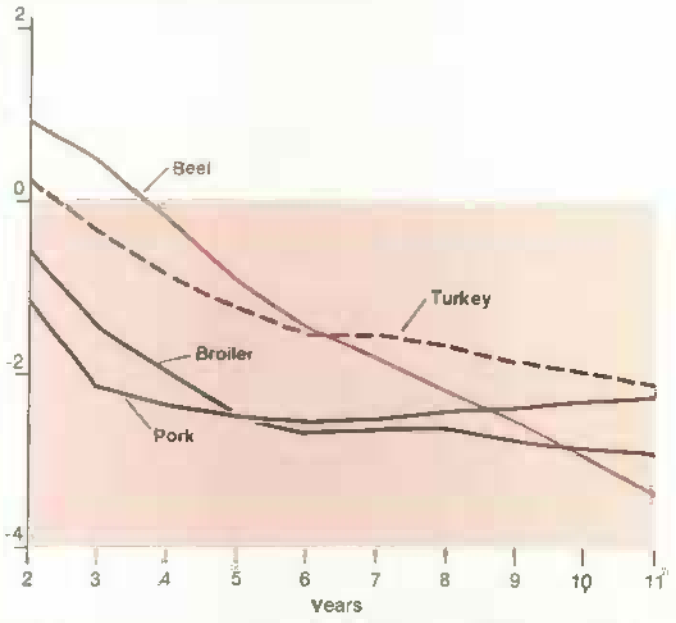
Cow and bull slaughter surpasses the benchmark solution by the seventh year of the simulation as larger numbers of breeding animals are culled. The older breeders are culled because they are less productive. Culling also increases toward the end of the decade because profits start retreating after several years of higher output. Heifer slaughter remains below the benchmark solution throughout the scenario as herd expansion continues and older animals are replaced.

Retail beef prices initially rise as output declines. But, the advances are tempered by the increased production of other meats. And by the fourth year of the simulation, beef prices are below the benchmark solution even though production is still down.

Lower Feed Costs Would Pull Up Meat Output...



...And Push Down Retail Prices



Changes in production and prices obtained from an econometric model that simulates U.S. livestock producer responses to a sustained 10-percent drop in feed costs over an 11-year horizon

Slaughter steer prices follow retail beef prices. Initially, they are above the benchmark, but drop below by the third year. Feeder steer prices are derived from the demand for larger feedlot placements, so they increase in the initial periods as feed costs drop and steer prices increase. Feeder steer prices remain above the benchmark scenario until the fifth year of the simulation, when lower steer prices resulting from increased supplies of calves offset the lower feed costs.

Pork production increases the most in the first year. Because feed costs are the largest component of hog production costs,

About the Model

The Annual Livestock Model used in this assessment has 50 equations that focus on the beef, pork, broiler, and turkey subsectors. The model solves for breeding and slaughter inventories, production, supply, demand, and prices for each commodity. Interaction among the commodities occurs at the consumer demand level, and is consistent with basic tenets of demand theory. Farm level prices are derived from the generated retail price indices.

Producers react to changing farm costs and returns by changing their inventories of breeding and slaughter animals. Trade data, feed costs, and macroeconomic factors are included as inputs into the model's solutions. While past technical progress is embodied in the cost functions, the rate of technological gain is not determined by the model.

The cattle subsector has 14 equations that determine: cow, bull, heifer, and steer inventories; the calf crop; cow, bull, heifer, and steer slaughter; and average dressed weights. Production equals average dressed weight times the sum of the slaughter classes. Pork supply is determined by five equations: sow farrowings, barrow and gilt slaughter, sow slaughter, boar slaughter, and average dressed weights.

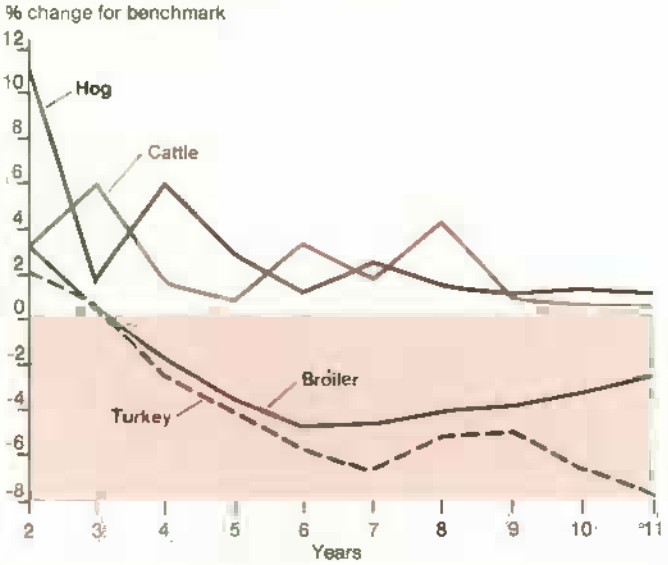
Broiler production is determined by four equations: hatchery supply flock, chick placements, slaughter, and average dressed weight. The turkey sector also contains four equations determining flock size, poult placements, turkey slaughter, and dressed weight.

Per capita consumption of each meat primarily determines retail prices. Prices adjust each period for each meat so that the quantity supplied matches the quantity demanded. Retail prices for each meat also depend on consumer tastes and preferences, the consumption of other meats, consumer expenditures on nonmeat products, and consumer incomes.

Wholesale and farm prices are determined by retail prices, processing costs, and byproduct values. These prices feed into the cost and return equations, which then determine future production.

The model also generates estimates of total net returns to producers. Total net returns are defined as returns per unit times production minus costs per unit times total production.

Total Net Returns Would Rise for Red Meat Producers, But Slip for Poultry Producers



Changes in net returns obtained from an econometric model that simulates U.S. livestock producer responses to a sustained 10-percent reduction in feed costs over an 11-year horizon.

output moves up briskly. Production continues to climb during the next 2 years, but flattens off and the rates of growth begin to decline toward the end of the simulations.

Retail pork prices are basically a mirror image of the production pattern until the last several years. Then, large supplies of competing meats keep prices from rebounding at the same rate that output declines. The barrow and gilt seven-market price moves in tandem with the drop in retail prices.

Broiler production increases steadily in the first several years of the scenario in response to lower feed costs. However, by the last 2 years output slips below the benchmark solution. Large supplies of competing meats keep broiler prices below the benchmark and are the reason why production slows.

Turkey production only increases above the benchmark for the first 2 years of the analysis. Larger quantities of pork and chicken hold down turkey prices in the first several years. Later, increased beef and pork supplies keep turkey prices down.

Total meat consumption is slightly over 1 percent above the benchmark by the end of the period. Consumption by meat class follows the pattern of production changes because trade and stocks were assumed to remain constant.

Higher consumption at lower prices benefits consumers. But, returns to livestock producers show differing patterns. Cattle producers' total net returns are above the benchmark throughout the simulation period. Still, near the end of the period, returns move back toward the benchmark solution.

Returns to hog producers also remain above the benchmark for the entire period, but the gains narrow as the years pass. Returns to broiler and turkey growers drop below the benchmark by the third year. *[Richard Stillman and Mark Weimar (202) 786-1285]* AO

Special Articles

Higher Oil Prices To Lift U.S. Ag Exports?

The shutoff of petroleum exports from Iraq and Kuwait has raised the specter of rapid, destabilizing oil price increases, perhaps by enough to spark a worldwide recession. But, based on the effects of recessions in 1974/75 and 1981/82 following previous oil price shocks, a drop in world income does not necessarily cut U.S. agricultural exports.

In fact, higher oil prices have been associated with higher U.S. agricultural exports. Recycled petrodollars can, under the right conditions, boost world demand for U.S. farm products. The strength of this linkage, to a large degree, depends on the monetary policies adopted by the industrialized countries.

USDA research shows that if oil prices were to average $25 per barrel in 1990, and continue up at a 12-percent annual rate, U.S. agricultural exports would rise $1 to $3 billion over the next 3 years. The smaller export number is more likely if monetary policies are tight, while the larger estimate assumes that accommodative monetary policies will be adopted.

For the simulations presented here, no attempt was made to include the effects of changes in agricultural supply or other prices. However, the historic pattern of nonoil primary commodity prices moving in tandem with energy prices is assumed to remain unchanged. Further, no explicit assumptions were made about change in farm income as a result of higher energy prices.

The Soviet Union is assumed to benefit from higher oil prices as it did in the 1973-74 and 1979-81 shocks. Eastern Europe is assumed to experience a slight gain from financial inflows that more than offset losses from paying for oil with hard currency.

The simulations clearly show a net rise in U.S. agricultural exports, given the past behavior of central monetary authorities. Moreover, recent real interest rates in world markets are closer to those in 1974 than in 1981. So, barring drastic circumstances, world monetary conditions are expected to provide a modestly fertile ground for agricultural trade over the next 2-3 years.

Oil Prices & Ag Exports Move in Tandem

The future directions of oil prices, the volume of world trade, and U.S. agricultural exports depend, to a large extent, on the monetary policies of major industrialized countries as they react to the initial shock of an oil price increase.

Will Iraqi and Kuwaiti Crude Be Replaced?

Of the 4.5 million barrels per day (mbd) of crude oil that stopped flowing from Iraq and Kuwait, about 2.8 mbd have so far been replaced by other OPEC members. Saudi Arabia has pumped an extra 1.9 mbd, and Venezuela an extra 0.3 mbd.

Excluding the Soviet Union, the world's excess crude oil production capacity is estimated at over 5 mbd, 90 percent of which is held by OPEC. Nearly 4 mbd of excess capacity are available from the Persian Gulf outside Iraq and Kuwait, and an additional 1 mbd from other OPEC members. Between 0.3 and 0.5 mbd can also be supplied from the North Sea, Mexico, Canada, and other sources.

Excess production capacity is the difference between the maximum sustainable for at least 90 days and actual production as of July.

World crude oil reserves were estimated at 1 trillion barrels as of this past January. Two-thirds of these reserves are in the Persian Gulf region, and 40 percent belongs to Saudi Arabia. OPEC's share of the world's total reserves amounts to 76.5 percent.

The amount of oil demanded is also declining in response to the higher prices. Conservation efforts in the developed countries have been given a strong boost by the price shock.

Two contrasting episodes of oil price spurts during the past 20 years shed light on what may be expected. Both of these oil shocks led to recessions, yet subsequent movements in oil prices and U.S. agricultural exports were very different. Monetary authorities of the Western industrial democracies focused on fighting inflation following the 1979-81 shock, but concentrated on recovering from a recession after the 1973-74 shock.

Following the first shock, oil prices moved up continuously from an average of $9.73 per barrel in 1974 to $12.70 in 1978. At the same time, U.S. agricultural exports rose from $21.6 billion to $28.5 billion.

However, after oil prices doubled between 1979 and 1981 to more than $34, they plummeted to an average of $13.82 in 1986. Prices recovered slighdy to an average $17.18 in 1989. U.S. agricultural exports followed a similar pattern, peaking at $43.5 billion in 1981, declining to $27.4 billion in 1986, and recovering to nearly $40 billion in 1989.

Oil prices and agricultural trade are clearly related. However, their association reflects more fundamental relationships in the world economy. The only clearly identical factor affecting both U.S. agricultural trade and oil is that they are paid for in dollars.

Oil prices rose from $2.65 per barrel to $9.73 during the first price shock in 1973-74. The increase was preceded and followed by expansionary monetary policies in the major industrial countries. The U.S. money supply, broadly defined, rose an average 8 percent a year between 1969 and 1972, and over 11 percent between 1975 and 1978. Fears of inflation slowed money growth in 1973-4, contributing to the sharp recession of 1974-75.

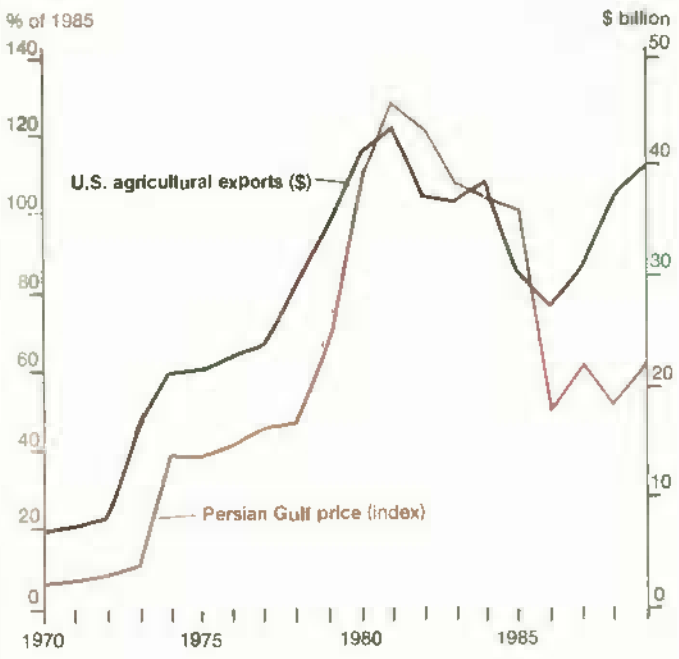
Real gross domestic product (GDP) in the U.S. rose 4.9 percent in 1973, but fell 0.7 percent in 1974 and 1.0 percent in 1975. Growth slowed in the rest of the industrial world, but only Japan and the U.K. showed a decline in total income in 1974. Japan recovered in 1975, but recessions appeared in many industrial countries.

Beginning in 1975, monetary authorities in the major industrial countries attempted to break out of the 1974-75 recession by speeding up money growth. While economic growth picked up, the policies also generated rapid inflation in the late 1970's, that culminated in double-digit inflation rates in the U.S. during 1979-81. In response, the monetary authorities put on the brakes.

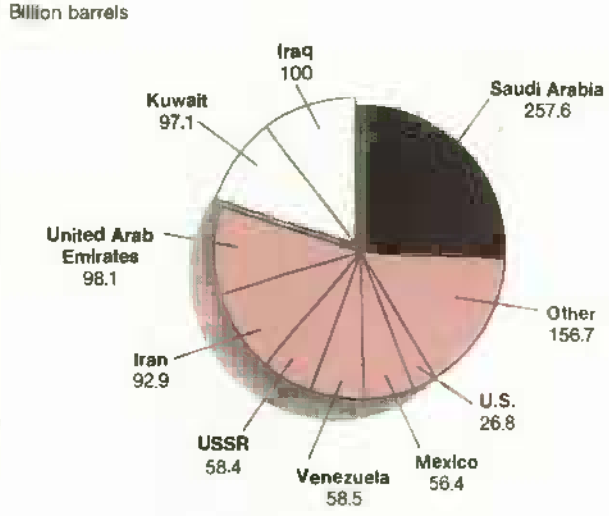
The 1979-81 oil price increase was also very sharp—average crude prices rose some 170 percent. However, the monetary responses of the major industrialized countries, particularly after 1981, were far different than in the earlier crisis. The central banks of the U.S., West Germany, and Japan all slowed the rate of money growth after 1980.

The first effect of the slowdown was a severe worldwide recession, led by the major industrial countries. GDP growth in the U.S. had averaged 3.5 percent per year between 1976 and 1979,

U.S. Agricultural Exports Follow Oil Prices



Saudi Arabia Holds One-Fourth of World Oil Reserves



As of January 1, 1990, world crude oil reserves totaled 1,002.5 billion barrels.

but declined to 0.2 percent in 1980, rose only to 2 percent in 1981, then fell to -2.5 percent in 1982.

GDP growth in the industrial nations fell from an average of 4 percent in 1976-79 to 1.4 percent in 1980 and 1981, then slipped to a negative 0.3 percent in 1982. The rise in oil prices was a major factor in the torpid growth of 1980-81, but the contraction in money growth after 1980 was the key force precipitating the recession of 1982.

Special Articles

World Credit Drives Agricultural Trade

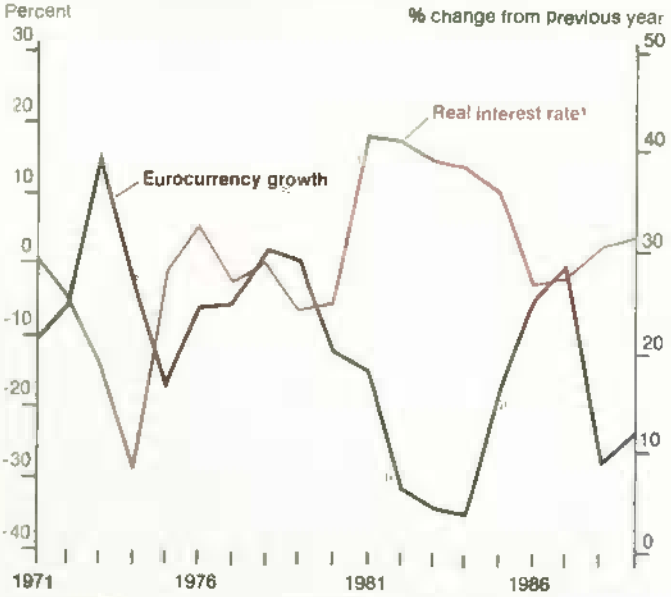
One key aspect of the growing integration of the world economy has been the emergence of a well-integrated world financial system. Bankers, investors, and governments can now use financial flows to influence the movement of real resources across borders.

Between World War II and the early 1960's, the movement of money from one country to another was almost exclusively related to trade in goods or government-to-government transfers. However, in the 1960's the Eurocurrency market expanded quickly, largely in response to a sustained period of U.S. balance-of-payment deficits. Eurocurrencies are accounts denominated in a currency different than that where the bank is located. A deposit of U.S. dollars in any bank outside the U.S. is thus classified as a Eurodollar, whether the deposit is in Europe or not.

The market broadened in the 1960's to include all major European currencies, and other offshore banking centers emerged around the world. There are now major international capital markets in all regions of the world. The emergence of huge dollar deposits associated with the recycling of revenues produced by the oil shock of 1973-74, and the move to flexible exchange rates at the same time, greatly increased the size of these international money markets.

The stock of private assets and flow of transactions on Eurocurrency markets are so large that it is hard to imagine how any one government or set of governments could alter the flows significantly. Eurocurrency deposits exceeded $6 trillion at the

Interest Rate Spikes Reflect Tight Money Conditions



¹London Interbank Offered Rate (LIBOR) adjusted for commodity price inflation.

Higher Oil Prices To Dampen Growth

A major question growing out of recent events in the Middle East is the effect of higher crude oil prices on world economic growth. Private forecasters and the Organization for Economic Cooperation and Development (OECD) have come to similar conclusions regarding this question.

The crisis in Iraq and Kuwait will reinforce the divergent economic growth trends in the industrialized countries, increasing the risk of recession in North America, while leaving Japan and much of Western Europe with slowed real growth.

The rise in the average price of crude oil exports from $15 per barrel last July to $25 in August will benefit several oil exporters, including Mexico, Venezuela, Nigeria, Indonesia, the Soviet Union, and China. Model simulations by the OECD show that a $10-jump in petroleum prices would shave 1 percentage point off U.S. growth through next year, 1.2 points off Europe's growth, and 1.5 points off Japan's.

These figures, however, do not reflect that the U.S. is half as energy efficient as Japan and Western Europe, according to estimates of energy consumed per dollar of gross national product. Furthermore, despite having a lower ratio of oil imports to GNP, U.S. net oil imports in 1989 jumped 68 percent over 1982's level, whereas Japan's rose only 13 percent, and Western Europe's declined.

Nevertheless, the industrialized countries are in a better position to withstand higher oil prices than the developing countries, whose oil consumption has risen at a faster rate—18 percent from 1986 to 1989, compared with 9 percent in the OECD, whose members are all developed countries. The rapidly growing economies of Southeast and East Asia accounted for a large portion of this oil consumption growth in the developing countries. In other LDC's, oil demand has outstripped economic growth.

Probable gainers such as Mexico and Venezuela stand to experience some negative repercussions from an economic slowdown in the U.S., by far their largest export market.

Eastern Europe, being almost totally dependent on oil imports, will now have to pay market prices in hard currency for Soviet oil. Moreover, the region's industries are notoriously inefficient users of energy. Finally, oil import-dependent developing countries with heavy external debt-service obligations now face a longer period of recovery.

end of first-quarter 1990. Annual world exports of all merchandise are approximately half that amount.

International financial flows recently were estimated by the Federal Reserve to exceed $430 billion per day, or almost 40 times the trade flow of goods and services.

The growing international financial system has changed the way that monetary and fiscal policies affect the world economy. Under fixed exchange rates, monetary and fiscal policies were transmitted overseas via changes in interest and inflation rates. A small country with a fixed exchange rate was therefore powerless to avoid external shocks resulting from abrupt monetary and fiscal policy changes in the rest of the world.

Under a flexible exchange rate regime, however, the major impact of independent policies is to induce changes in exchange rates through capital flows—the transfer of assets denominated in one currency to those of another—as real interest rates change. Inflation, or deflation, is largely kept at home.

Changes in real interest rates have two effects. First, real interest rate changes affect relative currency values. For example, high real dollar interest rates in the U.S. in the early 1980's led to a sharp increase in the dollar's exchange value. Second, the high real interest rates were transmitted to Eurocurrency markets. If U.S. interest rates on dollar deposits rose relative to Eurodollar interest rates, dollar deposits would flow back into the U.S. until Eurodollar interest rates rose to match.

So, the path of Eurodollar interest rates is one manifestation of the international transfer of U.S. monetary policy. During the 1970's, ceilings on bank deposit rates in the U.S., the move to flexible exchange rates, and the first round of petrodollar recycling led to a surge in the size of the world money market. Eurocurrencies grew an average 25 percent per year between 1971 and 1980.

However, as the world economy contracted and tight monetary policies were introduced in major industrialized countries, Eurocurrency growth slipped to less than 10 percent per year during 1981-85. This was more severe than the decline in growth rates of domestic currencies.

The path of real interest rates indicates the different monetary responses of the two periods. Real interest rates are defined here as the difference between the market interest rate and a measure of price increases. One representative international real interest rate is the London Interbank Offered Rate (LIBOR), a wholesale dollar interest rate in London, less an index of world traded goods prices. The inflation-adjusted LIBOR was almost uniformly negative during the 1970's, before turning sharply positive in 1981.

Changes in Eurocurrency growth rates alter the amount of credit available to finance much of world trade, shifting the price of that credit. Negative real interest rates mean that traders can profit from holding commodity stocks. And they will increase their holdings so long as prices are going up faster than interest rates. Agricultural shortages may develop and price rises accelerate so long as this occurs. So, holding other factors

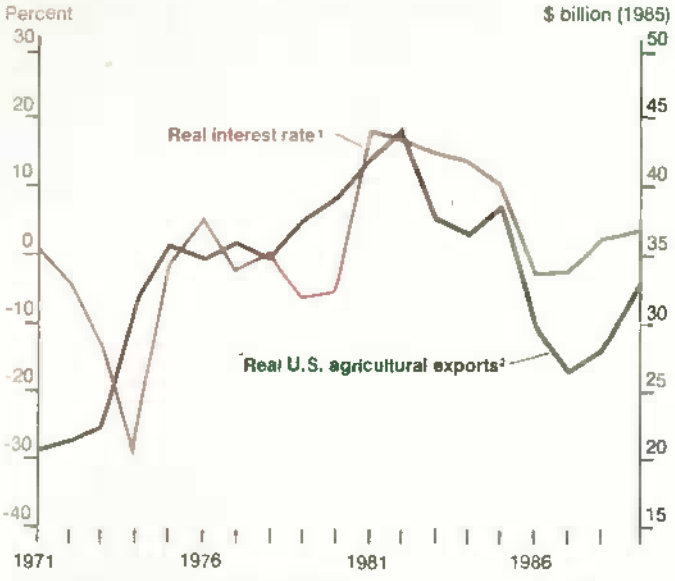
Oil Price Increase Put Upward Pressure on U.S. Agricultural Exports

Country/region	Expansionary monetary policy			Contractionary monetary policy		
	Benchmark price (8.1 percent average annual increase) 1/	150 percent of benchmark (12.1 percent average annual increase) 2/	200 percent of benchmark (16.2 percent average annual increase) 3/	Benchmark price (8.1 percent average annual increase)	150 percent of benchmark (12.1 percent average annual increase)	200 percent of benchmark (16.2 percent average annual increase)
			$ billion			
World total	2.00	2.99	3.99	0.72	1.08	1.44
Developed	0.69	1.03	1.37	0.20	0.30	0.39
Developing	0.87	1.30	1.73	0.25	0.37	0.50
Centrally planned	0.44	0.66	0.88	0.27	0.41	0.54
Western Europe	0.25	0.37	0.50	0.24	0.36	0.48
EC	0.23	0.35	0.47	0.23	0.34	0.45
Other Western Europe	0.01	0.02	0.03	0.02	0.03	0.03
OPEC	0.11	0.16	0.21	0.12	0.18	0.24
North Africa/ Middle East	0.20	0.30	0.39	0.06	0.09	0.12
Sub-Saharan Africa	0.02	0.04	0.05	0.00	0.00	0.00
Four Tigers 4/	0.27	0.40	0.54	-0.06	-0.09	-0.12
South Asia	0.02	0.03	0.04	-0.01	-0.02	-0.02
Southeast Asia	0.05	0.07	0.09	0.03	0.04	0.06
Latin America	0.31	0.46	0.62	0.24	0.35	0.47
Eastern Europe	0.02	0.04	0.05	0.03	0.04	0.06

1/ Average price of $27.50 per barrel during 1991-93 for West Texas Intermediate Crude. 2/ Average price of $31.50 during 1991-93. 3/ Average price of $36.25 during 1991-93. 4/ Hong Kong, Singapore, South Korea, and Taiwan.

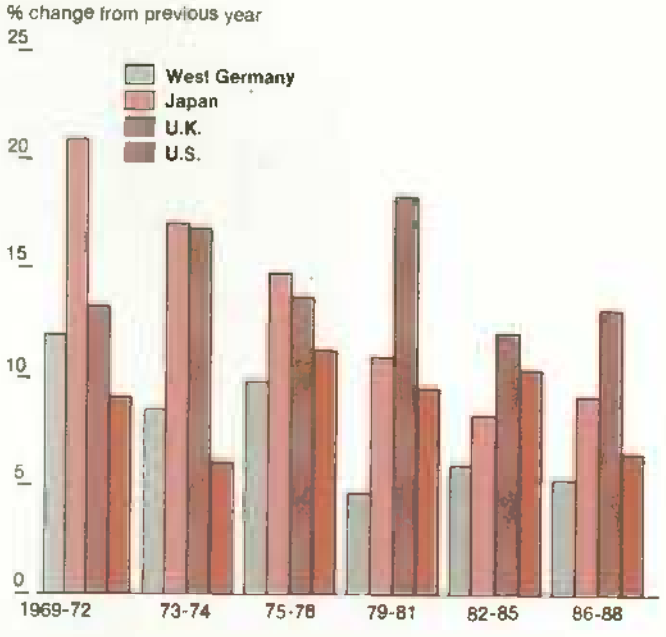
Special Articles

Negative Real Interest Rates Pull Up U.S. Agricultural Exports



¹London Interbank Offered Rate (UBOR) adjusted for commodity price inflation. ²Real U.S. agricultural exports are nominal values divided by export unit values.

Money Growth Response Dampened After 1979-81 Oil Shock



constant, the dollar value of U.S. agricultural exports rises when real interest rates are negative.

The commodity demand side is similar. Borrowing at negative interest rates means that the repayments will be worth less than the face value of the loan. Thus, it is profitable to buy commodities now rather than later using borrowed money. The reverse holds when real interest rates are high. Commodity stocks are then more expensive to hold, so they will tend to be reduced.

Second, the high cost of borrowing implies that prices must fall to offset interest rate charges. Indeed, there is a strong inverse relationship between interest rates and the dollar value of U.S. agricultural trade.

The rise in oil prices ultimately could not be sustained in the 1980's. Demand fell, substitutes were developed, and energy users became more efficient. Further, monetary policy in the industrial market economies did not accommodate the hike as in 1975-78. The question is which response is more likely in the near future: an expansionary monetary policy to forestall a recession, or one that minimizes the risk of inflation. Each scenario is plausible.

What Happens Now?

Slower growth in the industrial world may lead to an expansionary monetary policy in the industrial market economies. As a result, swelling world capital markets would lead to a larger increase in U.S. agricultural exports. However, fear of inflation could lead to mildly contractionary policies. Simulations were constructed for each of these scenarios.

A benchmark nominal oil price increase of 8.1 percent per year, approximately the average projected in early 1990 by the Department of Energy for 1990-2000, is consistent with a $2-billion rise in U.S. agricultural exports over the next 3 years, assuming an expansionary monetary policy similar to that of the 1970's. Iraqi and Kuwaiti agricultural imports were assumed to be zero.

A 12-percent rise in oil prices (shown in the accompanying table as a 50-percent oil price rise over the benchmark) raises U.S. agricultural exports by almost $3 billion, or an additional $1 billion.

With a contractionary monetary policy, on the other hand, higher oil prices still would push up U.S. agricultural exports, but scarcely over $700 million in the benchmark case, and only $1.1 billion given a persistent 12-percent oil price rise.

Regardless of monetary policy, the international capital flows resulting from a sustained oil price rise increase agricultural trade. The difference, as it affects U.S. farm exports, between the two scenarios is one of magnitude. For the simulations, expansionary monetary policies were assumed to be reflected by annual growth rates of 20 percent in the Eurocurrency market, while tight policies were proxied by growth rates of 7-10 percent.

U.S. agricultural exports to the developing countries differ most notably between the alternative monetary policies, particularly to the Four Tigers (South Korea, Taiwan, Singapore, and Hong Kong) and South Asia (India, Pakistan, Bangladesh, Sri Lanka, and Nepal). In both regions, imports of U.S. agricultural products would decline significantly from current levels with tight money policies. *[David Stallings, Alberto Jerardo, Timothy Baxter, and Francis Urban (202) 786-1705]* AO

Statistical Indicators

Summary Data

Table 1.—Key Statistical Indicators of the Food & Fiber Sector

	1989		1990					1991	
	I	Annual	I	II	III F	IV F	Annual F	IF	Annual F
Prices received by farmers (1977=100)	149	147	152	149	148	144	148	—	—
Livestock & products	159	160	171	172	169	162	168	—	—
Crops	139	134	132	131	125	124	127	—	—
Prices paid by farmers, (1977=100)									
Production items	166	165	168	169	—	170	169	—	—
Commodities & services, interest, taxes, & wages	175	177	181	183	—	184	182	—	—
Cash receipts ($ bil.) 1/	155	158	159	176	177	165	168–172	—	—
Livestock ($ bil.)	82	84	87	90	88	91	88–91	—	—
Crops ($ bil.)	73	74	72	86	89	74	79–82	—	—
Market basket (1982–84=100)									
Retail cost	122	125	133	132	—	—	—	—	—
Farm value	106	107	118	114	—	—	—	—	—
Spread	131	134	141	142	—	—	—	—	—
Farm value/retail cost (%)	31	30	31	30	—	—	—	—	—
Retail prices (1982–84=100)									
Food	123	125	131	132	133	133	132	—	—
At home	122	124	132	131	132	132	132	—	—
Away from home	125	127	131	133	134	136	134	—	—
Agricultural exports ($ bil.) 2/	10.9	39.7	11.3	9.7	8.5	—	40.0	—	—
Agricultural imports ($ bil.) 2/	6.8	21.5	6.1	5.7	4.8	—	22.5	—	—
Commercial production									
Red meat (mil. lb.)	9,594	39,418	9,581	9,542	9,659	9,944	38,726	9,565	39,468
Poultry (mil. lb.)	5,070	22,039	5,611	5,904	6,035	6,045	23,595	5,945	24,810
Eggs (mil. doz.)	1,388.8	5,587	1,390	1,413	1,420	1,440	5,664	1,415	5,715
Milk (bil. lb.)	36.6	144.3	36.9	38.5	36.4	35.8	147.7	37.8	149.6
Consumption, per capita									
Red meat and poultry (lb.)	52.9	220.5	53.3	54.1	55.5	57.9	220.9	54.4	226.6
Corn beginning stocks (mil. bu.) 3/	7,071.6	4,259.1	7,079.2	4,812.7	2,839.4	—	1,930.4	—	1,330.0
Corn use (mil. bu.) 3/	1,868.3	7,260.2	2,267.0	1,973.9	—	—	8,130.0	—	8,075.0
Prices 4/									
Choice steers—Omaha ($/cwt)	73.67	72.52	77.20	77.52	74–76	73–79	75–77	75–81	75–81
Barrows & gilts—7 mkts. ($/cwt)	40.78	44.03	49.45	59.01	56–58	47–53	53–55	47–53	49–55
Broilers—12-city (cts./lb.)	59.4	59.0	56.5	56.6	55–57	48–54	54–56	50–56	51–57
Eggs—NY gr. A large (cts./doz.)	78.4	81.9	87.8	74.6	75–77	67–73	76–78	64–70	66–72
Milk—all at plant ($/cwt)	13.13	13.56	14.67	13.57	14.10–14.30	13.00–14.00	13.85–14.15	11.75–12.75	10.90–11.90
Wheat—KC HRW ordinary ($/bu.)	4.36	4.36	4.16	3.88	—	—	—	—	—
Corn—Chicago ($/bu.)	2.75	2.55	2.42	2.80	—	—	—	—	—
Soybeans—Chicago ($/bu.)	7.59	6.70	5.70	6.07	—	—	—	—	—
Cotton—Avg. spot mkt. (cts./lb.)	56.2	63.7	65.1	74.3	—	—	—	—	—

	1983	1984	1985	1986	1987	1988	1989	1990 F	1991 F
Gross cash income ($ bil.)	150.5	155.5	157.2	152.0	164.3	170.4	177	183–169	—
Gross cash expenses ($ bil.)	111.4	118.8	109.0	104.8	108.2	112.0	123	124–127	—
Net cash income ($ bil.)	39.2	36.8	48.2	47.2	56.1	58.4	55	59–63	—
Net farm income ($ bil.)	14.9	26.5	31.2	31.4	41.2	42.0	47	47–52	—
Farm real estate values 5/									
Nominal ($ per acre)	788	801	713	640	599	632	667	693	714–721
Real (1977 $)	472	459	395	346	317	322	325	322	317–320

1/ Quarterly data seasonally adjusted at annual rates. 2/ Annual data based on Oct.–Sept. fiscal years ending with year indicated. 3/ Dec.–Feb. first quarter; Mar.–May second quarter; June–Aug. third quarter; Sept.–Nov. fourth quarter; Sept.–Aug. annual. Use includes exports & domestic disappearance. 4/ Simple averages. 5/ 1990–91 values as of January 1. 1986–89 values as of February 1. 1982–85 values as of April 1. F = forecast, — = not available.

U.S. and Foreign Economic Data

Table 2.—U.S. Gross National Product & Related Data

	Annual			1989			1990	
	1987	1988	1989	II	III	IV	I	II R
	$ billion (quarterly data seasonally adjusted at annual rates)							
Gross national product	4,515.6	4,873.7	5,200.8	5,174.0	5,238.6	5,289.3	5,375.4	5,451.9
Personal consumption expenditures	3,009.4	3,238.2	3,450.1	3,425.9	3,484.3	3,518.5	3,588.1	3,623.9
Durable goods	423.4	457.5	474.6	473.6	487.1	471.2	492.1	479.3
Nondurable goods	1,001.3	1,060.0	1,130.0	1,127.1	1,137.3	1,148.8	1,174.7	1,178.7
Clothing & shoes	178.4	191.1	204.6	203.4	206.9	208.7	212.9	212.9
Food & beverages	530.7	562.6	595.3	592 5	597.6	602.2	616.4	623.0
Services	1,584.7	1,720.7	1,845.5	1,825.1	1,859 8	1,898.5	1,921.3	1,965.9
Gross private domestic investment	699.5	747.1	771.2	776.7	775.8	762.7	747.2	760.5
Fixed investment	671.2	720 8	742.9	744.0	746.9	737.7	758.9	745.7
Change in business inventories	28.3	26.2	28.3	32.7	28.9	25.0	−11.8	14.8
Net exports of goods & services	−114.7	−74.1	−46.1	−51.3	−49.3	−35.3	−30.0	−19.1
Government purchases of goods & services	921.4	962.5	1,025.6	1,022.7	1,027.8	1,043.3	1,070.1	1,086.6
	1982 $ billion (quarterly data seasonally adjusted at annual rates)							
Gross national product	3,845.3	4,016.9	4,117.7	4,112.2	4,129.7	4,133.2	4,150.6	4,162.6
Personal consumption expenditures	2,515.8	2,606.5	2,658.8	2,645.3	2,675.3	2,669.9	2,677.3	2,679.3
Durable goods	391.4	418.2	428.0	428.2	438.1	423.1	437.6	427.4
Nondurable goods	892.7	909.4	919.9	914.6	923.4	923.0	915.6	911.0
Clothing & shoes	160.7	165.0	172.7	170.8	176.6	175.1	174.2	171.5
Food & beverages	424.0	462.2	462.9	461.9	463.0	460.3	457.4	459.0
Services	1,231.6	1,278.9	1,309.0	1,302.5	1,313.8	1,323.8	1,324.2	1,340.9
Gross private domestic investment	669.0	705.7	716.9	719.1	722.3	709.1	700.7	702.5
Fixed investment	646.2	682.1	693.1	693.6	697.7	690.2	702.9	690.8
Change in business inventories	22.8	23.6	23.8	25.5	24.6	18.9	−2.2	11.6
Net exports of goods & services	−118.5	−75.9	−54.1	−53.3	−64.1	−47.9	−35.4	−39.9
Government purchases of goods & services	779.1	780.5	798.1	801.0	796 2	802.2	807.9	820.9
GNP implicit price deflator (% change)	3.2	3.3	4.1	3.9	3.2	3.8	4.8	4.4
Disposable personal income ($ bil.)	3,194.7	3,479.2	3,725.5	3,697.3	3,743.4	3,799.6	3,887.7	3,931.9
Disposable per. income (1982 $ bil.)	2,670.7	2,800.5	2,869.0	2,854.9	2,874.3	2,883.2	2,900.9	2,907.0
Per capita disposable per. income ($)	13,094	14,123	14,973	14,883	15,026	15,210	15,527	15,663
Per capita dis. per. income (1982 $)	10,946	11,368	11,531	11,492	11,538	11,541	11,586	11,581
U.S. population, total, incl. military abroad (mil.)	243.9	246.4	248.8	248.4	249.1	249.8	250.4	251.0
Civilian population (mil.)	241.7	244.1	246.6	246.2	246.9	247.6	248.2	248.5

	Annual			1989	1990			
	1987	1988	1989	July	Apr	May	June	July
	Monthly data seasonally adjusted							
Industrial production (1987=100)	100.0	105.4	108.1	107.8	108.8	109.4	110.0	110.0
Leading economic indicators (1982=100)	140.1	142.8	144.9	144.1	145.0	145.9	146.1	146.1
Civilian employment (mil. persons)	112.4	115.0	117.3	117.4	118.1	118.4	118.4	118.0
Civilian unemployment rate (%)	6.1	5.4	5.2	5.2	5.3	5.3	5.1	5.4
Personal income ($ bil. annual rate)	3,766.4	4,070.8	4,384.3	4,398.2	4,608.1	4,624.4	4,646.1	4,672.4
Money stock–M2 (daily avg.) ($ bil.) 1/	2,913.2	3,072.4	3,221.0	3,127.0	3,277.9	3,271.8	3,279.0	3,283.9
Three-month Treasury bill rate (%)	5.82	6.69	8.12	7.92	7.78	7.78	7.74	7.66
AAA corporate bond yield (Moody's) (%)	9.38	9.71	9.26	8.93	9.46	9.47	9.26	9.24
Housing starts (1,000) 2/	1,621	1,488	1,376	1,424	1,216	1,206	1,179	1,148
Auto sales at retail, total (mil.)	10.3	10.6	9.9	10.2	9.4	9.4	9.8	9.7
Business inventory/sales ratio	1.51	1.49	1.50	1.53	1.49	1.49	1.46	—
Sales of all retail stores ($ bil.)	128.5	137.5	144.5	145.4	147.9	147.8	149.4 P	149.5
Nondurable goods stores ($ bil.)	80.5	85.2	90.7	91.1	94.3	94.3	95.6 P	95.6
Food stores ($ bil.)	25.8	27.2	29.1	29.3	30.6	30.4	30.6 P	30.7
Eating & drinking places ($ bil.)	12.8	13.8	14.5	14.5	15.1	15.2	15.3 P	15.2
Apparel & accessory stores ($ bil.)	6.6	7.1	7.6	7.7	7.8	8.0	8.1 P	8.1

1/ Annual data as of December of the year listed. 2/ Private, including farm. R = revised. P = preliminary. — = not available.

Information contact: Ann Duncan (202) 786-3313.

Table 3.—Foreign Economic Growth, Inflation, & Export Earnings

	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990 F	1991 F	Average 1980–89
	Annual percent change											
World, less U.S.												
Real GDP	1.5	1.3	2.4	3.7	3.3	3.1	3.3	4.1	2.5	2.7	3.3	2.8
Consumer prices	13.6	13.1	11.9	12.5	12.9	8.5	11.4	17.7	33.2	47.9	11.9	15.1
Merch. exports	-2.7	-6.7	-2.7	5.1	2.3	11.1	18.8	12.8	7.0	10.3	10.1	6.5
Developed less U.S.												
Real GDP	1.1	0.8	2.2	3.9	3.4	2.7	3.4	4.2	3.6	3.2	3.2	2.8
Consumer prices	10.0	8.2	5.9	5.0	4.4	2.7	2.6	3.1	4.3	4.9	4.5	5.7
Merch. exports	-3.2	-4.4	-0.5	6.9	4.6	19.5	17.7	12.3	5.9	12.0	10.6	7.6
Developing												
Real GNP	2.0	2.1	2.2	4.0	3.9	4.0	3.8	4.1	4.1	3.3	5.3	3.5
Consumer prices	26.4	25.3	32.7	38.6	40.4	27.0	35.4	57.0	77.9	107.2	28.2	39.0
Merch. exports	-1.8	-10.4	-6.5	2.9	-2.0	-5.4	21.4	14.0	9.6	9.0	10.9	4.7
Asia, incl. China												
Real GDP	6.1	5.6	8.0	8.3	6.8	6.8	8.0	9.0	5.1	5.4	5.7	7.0
Consumer prices	9.3	8.4	6.6	6.9	7.3	5.6	7.4	11.8	10.1	7.4	6.0	8.4
Merch. exports	7.6	-0.5	4.6	14.6	-0.9	8.8	30.1	23.2	11.5	9.3	12.5	12.6
Latin America												
Real GDP	-0.4	-1.1	-2.8	3.4	3.5	4.0	2.9	0.3	1.0	0.7	4.4	1.7
Consumer prices	60.1	67.1	108.7	133.5	145.1	92.1	116.1	218.0	346.1	312.2	69.4	133.2
Merch. exports	6.5	-10.6	-1.0	6.7	-7.5	-14.6	9.1	16.9	10.2	12.4	10.4	4.6
Africa												
Real GDP	-1.9	2.0	-1.1	0.8	4.1	2.3	1.1	2.3	2.9	3.0	3.8	1.9
Consumer prices	23.4	13.1	17.9	20.8	13.2	12.5	13.1	19.2	22.1	17.1	15.5	17.0
Merch. exports	-19.7	-9.1	-8.0	3.4	-2.4	-17.8	20.9	-8.7	7.8	18.6	8.4	0.1
Middle East												
Real GDP	2.7	1.3	1.7	-0.9	-0.2	-0.6	-0.8	3.8	3.9	3.2	3.4	1.1
Consumer prices	16.8	12.9	11.9	14.3	17.1	14.9	19.2	19.4	14.5	14.2	13.1	15.8
Merch. exports	-3.8	-21.1	-22.2	-10.5	-6.8	-19.2	20.7	4.7	26.7	8.2	7.8	-0.9
Eastern Europe, incl. USSR												
Real GDP	0.6	2.0	3.0	1.8	1.8	3.0	1.3	1.6	-3.5	-4.9	-2.6	1.5
Consumer prices	6.6	12.8	5.4	4.2	6.0	7.4	9.1	15.7	70.3	117.5	15.9	15.3
Merch. exports	9.1	1.3	3.7	1.8	0.2	8.2	11.2	0.3	-1.0	4.2	4.1	5.0

F = forecast.

Information contact: Alberto Jerardo, (202) 786–1705.

Farm Prices

Table 4.—Indexes of Prices Received & Paid by Farmers, U.S. Average

	Annual			1989	1990					
	1987	1988	1989	Aug	Mar	Apr	May	June	July R	Aug P
	1977=100									
Prices received										
All farm products	126	138	147	145	150	151	154	151	152	150
All crops	108	127	134	128	128	131	134	129	130	126
Food grains	103	138	156	152	143	142	139	127	116	108
Feed grains & hay	85	120	128	120	123	129	136	133	131	124
Feed grains	81	117	123	116	117	123	128	129	128	120
Cotton	99	95	98	99	106	107	108	103	104	107
Tobacco	129	138	136	142	144	147	147	147	144	144
Oil-bearing crops	79	108	102	94	91	93	95	94	95	95
Fruit, all	181	184	190	184	179	196	204	191	205	182
Fresh market 1/	194	196	200	193	185	207	216	202	218	190
Commercial vegetables	144	144	156	138	145	119	124	118	133	142
Fresh market	147	137	146	129	132	108	113	104	122	133
Potatoes & dry beans	126	124	187	194	210	235	235	223	231	210
Livestock & products	148	150	160	161	171	170	173	173	173	174
Meat animals	163	168	174	177	190	193	199	197	196	196
Dairy products	129	126	139	136	141	138	139	142	145	148
Poultry & eggs	107	118	138	138	145	132	126	127	125	129
Prices paid										
Commodities & services, interest, taxes, & wage rates	162	169	177	—	—	183	—	—	184	—
Production items	147	157	165	—	—	169	—	—	170	—
Feed	103	128	135	—	—	128	—	—	130	—
Feeder livestock	179	192	194	—	—	213	—	—	214	—
Seed	148	150	165	—	—	163	—	—	163	—
Fertilizer	118	130	137	—	—	130	—	—	130	—
Agricultural chemicals	124	128	132	—	—	141	—	—	141	—
Fuels & energy	161	166	181	—	—	187	—	—	185	—
Farm & motor supplies	145	148	155	—	—	156	—	—	156	—
Autos & trucks	208	215	223	—	—	234	—	—	233	—
Tractors & self-propelled machinery	174	181	193	—	—	201	—	—	201	—
Other machinery	185	197	208	—	—	217	—	—	217	—
Building & fencing	137	138	141	—	—	144	—	—	143	—
Farm services & cash rent	147	148	158	—	—	163	—	—	163	—
Int. payable per acre on farm real estate debt	169	182	177	—	—	178	—	—	178	—
Taxes payable per acre on farm real estate	144	148	152	—	—	156	—	—	156	—
Wage rates (seasonally adjusted)	166	171	185	—	—	193	—	—	193	—
Production items, interest, taxes, & wage rates	151	160	167	—	—	171	—	—	171	—
Ratio, prices received to prices paid (%) 2/	78	82	83	81	83	83	84	83	83	82
Prices received (1910–14=100)	578	633	673	661	686	689	703	691	694	686
Prices paid, etc. (parity index) (1910–14=100)	1,110	1,167	1,220	—	—	1,260	—	—	1,265	—
Parity ratio (1910–14=100) (%)2/	51	54	55	—	—	58	—	—	58	—

1/ Fresh market for noncitrus; fresh market & processing for citrus. 2/ Ratio of index of prices received for all farm products to index of prices paid for commodities & services, interest, taxes, & wage rates. Ratio uses the most recent prices paid index. Prices paid data are quarterly & will be published in January, April, July, & October. R = revised P = preliminary — = not available.

Information contact: Ann Duncan, (202) 786–3313.

Table 5.—Prices Received by Farmers, U.S. Average

	Annual 1/			1989	1990					
	1987	1988	1989 P	Aug	Mar	Apr	May	June	July R	Aug P
CROPS										
All wheat ($/bu.)	2.57	3.72	3.72	3.74	3.49	3.49	3.40	3.08	2.79	2.59
Rice, rough ($/cwt)	7.27	6.83	7.30	7.42	7.50	7.31	7.21	7.08	6.95	6.76
Corn ($/bu.)	1.94	2.54	2.38	2.27	2.37	2.51	2.62	2.63	2.62	2.46
Sorghum ($/cwt)	3.04	4.05	3.79	3.81	3.70	3.89	4.04	4.29	4.44	4.15
All hay, baled ($/ton)	65.10	85.20	86.00	81.90	88.50	91.60	101.00	87.80	85.60	84.40
Soybeans ($/bu.)	5.88	7.42	5.70	6.07	5.65	5.82	5.96	5.86	5.97	6.00
Cotton, upland (cts./lb.)	63.7	55.6	e/ 63.3	60.2	64.1	65.0	65.4	62.3	62.9	65.0
Potatoes ($/cwt)	4.38	6.02	6.85	7.83	8.30	9.53	9.52	8.84	9.31	8.26
Lettuce ($/cwt) 2/	14.80	14.70	12.60	10.50	7.68	8.32	8.50	8.04	12.40	14.40
Tomatoes fresh ($/cwt) 2/	25.90	26.90	32.90	22.40	32.80	14.60	22.00	21.90	26.80	31.90
Onions ($/cwt)	12.50	9.75	11.80	16.00	19.60	19.40	13.60	11.20	9.41	9.72
Dry edible beans ($/cwt)	16.50	29.80	28.70	27.40	32.10	32.60	32.90	33.70	32.90	32.70
Apples for fresh use (cts./lb.)	12.7	17.4	13.4	15.90	12.9	13.3	13.1	12.6	18.4	20.4
Pears for fresh use ($/ton)	227.00	358.00	332.00	366.00	420.00	415.00	469.00	463.00	430.00	288.00
Oranges, all uses ($/box) 3/	5.40	7.18	6.89	5.78	5.33	6.60	7.03	5.64	5.19	5.07
Grapefruit, all uses ($/box) 3/	4.96	5.43	4.49	5.71	6.23	8.19	9.06	10.08	12.32	5.57
LIVESTOCK										
Beef cattle ($/cwt)	61.37	66.80	69.68	69.70	74.20	74.60	74.40	74.40	73.60	75.40
Calves ($/cwt)	78.10	89.85	91.84	94.20	99.10	100.40	101.00	98.10	96.50	98.50
Hogs ($/cwt)	50.79	42.53	43.24	45.60	51.30	53.80	61.20	60.10	60.80	56.00
Lambs ($/cwt)	77.92	69.50	67.33	66.60	66.00	62.90	59.80	55.40	54.40	53.30
All milk, sold to plants ($/cwt)	12.54	12.26	13.56	13.20	13.70	13.40	13.50	13.80	14.10	14.40
Milk, manuf. grade ($/cwt)	11.37	11.15	12.38	12.20	12.20	12.40	12.70	13.10	13.10	13.20
Broilers (cts./lb.)	28.3	34.0	36.0	35.70	36.4	33.2	35.2	34.1	36.9	33.2
Eggs (cts./doz.) 4/	53.1	53.3	70.0	71.60	79.3	71.4	60.2	62.7	55.6	65.6
Turkeys (cts./lb.)	34.3	37.3	40.0	40.80	37.2	37.0	38.2	38.2	38.4	39.9
Wool (cts./lb.) 5/	91.7	138.0	122.4	112.0	83.4	92.6	99.5	93.4	80.4	74.4

1/ Season average price by crop year for crops. Calendar year average of monthly prices for livestock. 2/ Excludes Hawaii. 3/ Equivalent on-tree returns. 4/ Average of all eggs sold by producers including hatching eggs & eggs sold at retail. 5/ Average local market price, excluding incentive payments. 6/ Weighted average of first 8 months of the season – not a projection for 1989/90. P = preliminary. R = revised.

Information contact: Ann Duncan (202) 786-3313.

Producer & Consumer Prices

Table 6.—Consumer Price Index for All Urban Consumers, U.S. Average (Not Seasonally Adjusted)

	Annual	1989		1990						
	1989	July	Dec	Jan	Feb	Mar	Apr	May	June	July
				1982–84=100						
Consumer Price Index, all items	124.0	124.4	126.1	127.4	128.0	128.7	128.9	129.2	129.9	130.4
Consumer Price Index, less food	123.7	124.2	125.8	126.7	127.3	128.1	128.4	128.7	129.4	130.0
All food	125.1	125.5	127.4	130.4	131.3	131.5	131.3	131.3	132.0	132.7
Food away from home	127.4	127.8	129.0	130.3	131.0	131.8	132.5	133.0	133.4	133.9
Food at home	124.2	124.8	126.5	131.0	132.1	131.9	131.1	130.9	131.7	132.5
Meats 1/	116.7	116.7	120.0	122.3	123.5	124.0	125.2	126.6	129.6	130.3
Beef & veal	119.3	119.5	122.1	124.5	126.2	126.6	128.0	128.5	129.0	129.2
Pork	113.2	113.6	117.2	119.7	119.7	121.0	121.6	125.5	132.9	134.8
Poultry	132.7	139.1	127.8	128.6	130.5	134.8	132.1	132.3	134.0	135.3
Fish	143.6	142.3	143.0	149.0	150.6	148.0	147.2	143.8	143.7	143.3
Eggs	119.5	112.8	134.9	143.9	124.7	131.6	130.3	115.0	112.2	109.1
Dairy products 2/	115.6	114.1	122.9	125.8	126.9	126.8	125.2	124.7	124.9	125.7
Fats & oils 3/	121.2	121.6	121.6	123.5	123.4	124.2	124.3	125.0	125.5	126.6
Fresh fruit	152.4	150.6	154.8	171.4	170.3	171.1	175.7	174.9	173.2	176.6
Processed fruit	125.9	126.0	125.2	125.1	131.9	136.7	138.1	139.2	140.1	140.1
Fresh vegetables	143.1	150.8	136.5	176.9	186.3	168.3	145.6	139.8	140.0	143.8
Potatoes	153.5	180.7	140.0	150.1	160.1	170.6	187.3	187.4	185.8	179.7
Processed vegetables	124.2	126.3	124.8	125.4	126.3	126.6	127.0	127.8	127.6	128.2
Cereals & bakery products	132.4	133.3	136.1	136.9	137.4	137.6	138.9	139.3	140.1	140.5
Sugar & sweets	119.4	120.1	121.1	122.5	122.9	123.0	123.6	124.4	124.5	124.9
Beverages, nonalcoholic	111.3	112.3	111.0	112.4	113.3	113.1	112.4	112.7	113.3	114.0
Apparel										
Apparel, commodities less footwear	117.1	112.8	117.6	114.6	119.0	124.9	126.2	124.5	121.8	118.8
Footwear	114.4	113.4	114.7	113.1	114.5	116.9	118.6	118.5	117.3	116.1
Tobacco & smoking products	164.4	167.5	171.9	174.1	175.0	175.1	175.6	176.7	180.9	185.7
Beverages, alcoholic	123.5	124.0	125.6	126.2	126.9	127.8	128.2	128.9	129.3	129.9

1/ Beef, veal, lamb, pork, & processed meat. 2/ Includes butter. 3/ Excludes butter

Information contact: Ann Duncan (202) 786-3313.

Table 7.—Producer Price Indexes, U.S. Average (Not Seasonally Adjusted)

	Annual			1989	1990					
	1987	1988	1989	July	Feb	Mar R	Apr	May	June	July
					1982 = 100					
Finished goods 1/	105.4	108.0	113.6	114.1	117.4	117.2	117.0	117.7	117.9	118.0
Consumer foods	109.5	112.6	118.7	119.0	124.6	124.4	123.2	124.9	124.5	124.9
Fresh fruit	112.0	113.5	111.9	117.3	114.3	114.8	110.3	105.4	114.7	132.2
Fresh & dried vegetables	103.7	105.5	116.9	124.6	191.7	148.9	103.5	101.6	100.6	104.9
Dried fruit	95.0	99.1	103.0	102.8	106.4	106.4	106.3	105.2	105.2	104.9
Canned fruit & juice	115.3	120.2	122.6	123.1	126.7	127.4	127.6	127.7	127.6	127.3
Frozen fruit & juice	113.3	129.8	124.6	128.9	147.3	147.6	146.0	146 1	146.2	146.3
Fresh veg. excl. potatoes	99.0	100.4	104.2	110.5	203.2	136.6	74.8	78.0	83.7	93.3
Canned veg. & juices	103.5	108.3	118.6	118.4	117.8	118.9	119.1	118.5	118.5	115.9
Frozen vegetables	107.3	108.6	115.5	115.7	117.9	118.8	117.8	119.5	117.6	117.8
Potatoes	120.1	113.9	153.6	157.8	161.2	196.3	199.0	178.0	151.2	139.9
Eggs	87.6	88.6	119.6	111.0	114.0	128.9	127.9	95.3	100.4	91.8
Bakery products	118.4	126.4	135.4	135.6	139.8	140.2	140.4	140.8	141.3	140.6
Meats	100.4	99.9	104.8	105.8	111.1	111.8	114.4	120.1	120.3	119.6
Beef & veal	95.5	101.4	109.0	108.2	113.6	113.7	116.7	117.7	115.7	113.3
Pork	104.9	95.0	97.5	101.8	107.7	109.6	113.7	127.4	130.2	130.9
Processed poultry	103.4	111.6	120.8	125.9	111.3	118.8	114.4	119.2	116.0	120.6
Fish	140.0	148.7	144.6	133.5	148.4	151.5	162.0	175.9	142.4	142.0
Dairy products	101.6	102.2	110.6	107.9	116.9	116.1	116.1	116.7	119.2	119.5
Processed fruits & vegetables	108.6	113.8	120.0	120.8	125.7	126.9	126.8	127.1	126.7	125.7
Shortening & cooking oil	103.9	118.8	116.6	117.1	116.9	121.5	118.6	127.0	128.4	127.7
Consumer finished goods less foods	100.7	103.1	108.9	109.8	112.4	111.8	111.9	112.5	112.8	112.9
Beverages, alcoholic	110.3	111.8	115.2	116.9	116.6	117.8	117.3	117.6	117.4	117.7
Soft drinks	111.8	114.3	117.2	117.8	123.5	123.3	123.3	122.8	120.5	120.7
Apparel	108.3	111.7	114.5	114.4	116.9	116.9	117.1	117.0	117.3	117.5
Footwear	109.3	115.1	120.8	120.4	125.3	125.5	124.8	125.2	125.2	128 0
Tobacco products	154.6	171.9	194.9	197.9	212.8	212.5	212.5	218.0	224.1	224.3
Intermediate materials 2/	101.5	107.1	112.0	112.5	112.5	112.4	112.8	112.9	112.9	113.0
Materials for food manufacturing	100.8	106.0	112.7	113.3	114.9	115.8	117.3	120.5	120.9	120.9
Flour	92.9	105.7	114.6	116.2	113.1	110.6	112.4	111.3	109.0	102.8
Refined sugar 3/	106.4	108.9	118.3	119.6	123.2	121.7	123.4	122.4	122.5	123.1
Crude vegetable oils	84.2	116.6	103.4	102.0	102.6	113.7	113.9	125.5	128.7	128.0
Crude materials 4/	93.7	96.0	103.0	103.9	106.8	105.6	102.6	104.2	101.0	101.2
Foodstuffs & feedstuffs	96.2	106.1	111.1	110.1	113.9	115.3	114.8	116.7	115.2	115.4
Fruits & vegetables 5/	106.8	108.5	114.1	120.8	156.9	133.3	106.0	102 8	106.3	116.3
Grains	71.1	97.9	106.4	105.1	100.4	100.2	107.2	108.6	110.4	103.1
Livestock	102.0	103.3	106.0	104.8	113.2	117.0	117.4	120.0	117.3	114.7
Poultry, live	101.2	121.5	128.8	135.5	115.5	129.1	117.3	128.2	118.5	134.7
Fibers, plant & animal	106.4	98.4	107.8	111.5	108.7	114.7	118.7	121.9	125.9	129.4
Fluid milk	91.8	89.4	98.1	93.7	105.1	100.5	96.7	98 3	101.5	104.7
Oilseeds	99.2	134.0	123.8	129.7	104.6	107.2	108.0	110.5	112 2	114.8
Tobacco, leaf	85.7	87.2	93.9	93.1	93.7	93.7	93.7	95 7	95.7	95.7
Sugar, raw cane	110.2	111.9	115.5	118.3	117.9	118.8	120.7	119.5	119.0	119.7
All commodities	102.8	106.9	112.2	112.8	114.4	114.2	114.0	114.5	114.2	114.3
Industrial commodities	102.5	106.3	111.6	112.2	113.6	113.2	113.1	113.3	113.1	113.2
All foods 6/	107.8	111.5	117.8	118.1	123.3	123.1	122.1	124.1	123.8	124.2
Farm products & processed foods & feeds	103.7	110.0	115.3	115.5	118.4	118.9	118.4	120.2	119 7	120.0
Farm products	95.5	104 9	110.7	110.5	115.7	115.3	112.8	113.1	113.1	113.7
Processed foods & feeds 6/	107.9	112.7	117.8	118.1	120.0	120.9	121.4	123.9	123.1	123.3
Cereal & bakery products	112.8	123.0	131.1	132.1	133.8	133.9	134.5	135.1	134.8	133.9
Sugar & confectionery	112.6	114.7	120.1	122.0	121.7	122.0	122.9	122.7	122.7	123.9
Beverages	112.5	114.3	118.3	119.4	120.7	121.5	121.0	121.0	120.5	120.7

1/ Commodities ready for sale to ultimate consumer. 2/ Commodities requiring further processing to become finished goods. 3/ All types & sizes of refined sugar. 4/ Products entering market for the first time that have not been manufactured at that point. 5/ Fresh & dried. 6/ Includes all raw, intermediate, & processed foods (excludes soft drinks, alcoholic beverages, & manufactured animal feeds). R = revised.

Information contact: Ann Duncan (202) 786–3313.

Farm-Retail Price Spreads

Table 8.—Farm-Retail Price Spreads

	Annual			1989	1990					
	1987	1988	1989 P	July	Feb	Mar	Apr	May	June	July
Market basket 1/										
Retail cost (1982–84=100)	111.6	116.5	124.6	125.2	133.1	132.9	132.2	132.0	133.0	133.7
Farm value (1982–84=100)	97.1	100.5	107.3	107.8	117.7	116.1	113.3	113.8	114.5	113.7
Farm–retail spread (1982–84=100)	119.4	125.1	134.0	134.5	141.3	140.9	142.3	141.9	143.0	144.4
Farm value–retail cost (%)	30.5	30.2	30.1	30.2	31.0	31.1	30.0	30.2	30.1	29.8
Meat products										
Retail cost (1982–84=100)	109.6	112.2	116.7	116.7	123.5	124.0	125.2	126.6	129.6	130.3
Farm value (1982–84=100)	101.2	99.5	103.3	103.4	111.6	113.7	117.0	119.9	122.3	118.9
Farm–retail spread (1982–84=100)	118.3	125.2	130.4	130.3	135.7	134.5	133.6	133.5	137.0	142.0
Farm value–retail cost (%)	46.7	44.9	44.8	44.9	45.8	46.4	47.3	47.9	47.8	46.2
Dairy products										
Retail cost (1982–84=100)	105.9	108.4	115.6	114.1	126.9	126.8	125.2	124.7	124.9	125.7
Farm value (1982–84=100)	93.3	90.6	99.1	94.1	108.5	102.8	98.4	99.2	100.9	102.7
Farm–retail spread (1982–84=100)	117.5	124.7	130.9	132.6	143.9	149.0	149.9	148.2	147.0	146.9
Farm value–retail cost (%)	42.3	40.1	41.1	39.6	41.0	38.9	37.7	38.2	38.8	39.2
Poultry										
Retail cost (1982–84=100)	112.6	120.7	132.7	138.1	130.5	134.8	132.1	132.3	134.0	135.3
Farm value (1982–84=100)	93.9	110.2	118.2	124.6	107.1	116.7	107.9	113.9	110.9	118.6
Farm–retail spread (1982–84=100)	134.2	132.8	149.3	153.4	157.4	155.7	160.0	153.5	160.6	154.5
Farm value–retail cost (%)	44.6	48.9	47.7	48.4	43.9	46.3	43.7	46.1	44.3	46.9
Eggs										
Retail cost (1982–84=100)	91.5	93.6	118.5	112.8	124.7	131.6	130.3	115.0	112.2	109.1
Farm value (1982–84=100)	76.8	76.7	107.7	97.4	108.4	125.6	110.3	88.0	93.1	80.1
Farm–retail spread (1982–84=100)	117.9	123.9	137.7	140.4	153.9	142.3	166.2	163.5	146.5	161.2
Farm value–retail cost (%)	53.9	52.7	58.4	55.5	55.9	61.3	54.4	49.2	53.3	47.2
Cereal & bakery products										
Retail cost (1982–84=100)	114.8	122.1	132.4	133.3	137.4	137.6	138.9	139.3	140.1	140.5
Farm value (1982–84=100)	71.0	92.7	101.7	102.9	99.5	100.0	99.5	98.9	94.9	90.3
Farm–retail spread (1982–84=100)	120.9	126.2	136.7	137.5	142.7	142.8	144.4	144.9	146.4	147.5
Farm value–retail cost (%)	7.6	9.3	9.4	9.5	8.9	8.9	8.8	8.7	8.3	7.9
Fresh fruits										
Retail cost (1982–84=100)	135.6	145.4	154.7	152.3	172.5	172.8	179.1	179.4	178.3	178.4
Farm value (1982–84=100)	113.9	116.5	108.9	106.4	131.9	126.4	118.5	116.0	118.3	121.7
Farm–retail spread (1982–84=100)	145.7	158.7	175.8	173.5	191.3	194.2	207.1	208.6	206.0	204.6
Farm value–retail cost (%)	26.5	25.3	22.2	22.1	24.1	23.1	20.9	20.4	21.0	21.5
Fresh vegetables										
Retail costs (1982–84=100)	121.6	129.3	143.1	150.8	186.3	168.3	145.6	139.8	140.0	143.8
Farm value (1982–84=100)	112.0	105.8	124.0	148.9	207.6	187.6	125.7	112.7	107.6	115.3
Farm–retail spread (1982–84=100)	126.5	141.3	152.9	151.8	175.3	158.4	155.9	153.7	156.6	158.5
Farm value–retail cost (%)	31.3	27.8	29.4	33.5	37.8	37.9	29.3	27.4	26.1	27.2
Processed fruits & vegetables										
Retail cost (1982–84=100)	109.0	117.6	125.0	126.0	129.4	132.2	133.2	134.1	134.6	134.8
Farm value (1982–84=100)	111.1	136.6	134.6	135.7	143.7	146.3	149.2	152.5	152.9	152.1
Farm–retail spread (1982–84=100)	108.3	111.7	122.0	123.0	125.0	127.8	128.2	128.4	128.9	129.4
Farm value–retail costs (%)	24.2	27.6	25.6	25.6	26.4	26.3	26.6	27.0	27.0	26.8
Fats & oils										
Retail cost (1982–84=100)	108.1	113.1	121.2	121.6	123.4	124.2	124.3	125.0	125.5	126.6
Farm value (1982–84=100)	74.1	103.0	95.7	91.8	96.7	108.0	106.3	115.4	114.1	110.9
Farm–retail spread (1982–84=100)	120.6	116.8	130.5	132.6	133.2	130.1	130.9	128.5	129.7	132.4
Farm value–retail cost (%)	18.6	24.5	21.2	20.3	21.1	23.4	23.0	24.8	24.5	23.6

	Annual			1989	1990					
	1987	1988	1989 P	July	Feb	Mar	Apr	May	June	July
Beef, Choice										
Retail price 2/ (cts./lb.)	238.4	250.3	265.7	269.7	271.0	272.5	277.9	283.6	282.1	279.9
Wholesale value 3/ (cts.)	160.0	169.4	176.8	174.2	186.0	187.7	190.1	191.6	187.8	183.3
Net farm value 4/ (cts.)	138.7	148.3	157.8	151.2	167.2	169.3	170.8	167.2	163.9	160.5
Farm–retail spread (cts.)	99.7	102.0	108.1	118.5	103.8	103.2	107.1	116.4	118.2	119.4
Wholesale–retail 5/ (cts.)	78.4	80.9	88.9	95.5	85.0	84.8	87.8	92.0	94.3	96.6
Farm–wholesale 6/ (cts.)	21.3	21.1	19.2	23.0	18.8	18.4	19.3	24.4	23.9	22.8
Farm value–retail price (%)	58	59	59	56	62	62	61	59	58	57
Pork										
Retail price 2/ (cts./lb.)	118.4	183.4	182.9	182.8	196.5	197.0	200.9	206.2	218.1	222.2
Wholesale value 3/ (cts.)	113.0	101.0	99.2	100.6	105.6	110.9	114.8	127.2	125.6	127.3
Net farm value 4/ (cts.)	82.7	69.4	70.4	75.2	78.4	83.3	86.1	99.5	96.9	99.2
Farm–retail spread (cts.)	105.7	114.0	112.5	107.6	118.1	113.7	114.8	106.7	121.2	123.0
Wholesale–retail 5/ (cts.)	75.4	82.4	83.7	82.2	90.9	86.1	88.1	79.0	92.5	94.9
Farm–wholesale 6/ (cts.)	30.3	31.6	28.8	25.4	27.2	27.6	28.7	27.7	28.7	28.1
Farm value–retail price (%)	44	38	38	41	40	42	43	48	44	45

1/ Retail costs are based on CPI–U of retail prices for domestically produced farm foods, published monthly by BLS. The farm value is the payment for the quantity of farm equivalent to the retail unit, less allowance for byproduct. Farm values are based on prices at first point of sale & may include marketing charges such as grading & packing for some commodities. The farm–retail spread, the difference between the retail price & the farm value, represents charges for assembling, processing, transporting, distributing. 2/ Weighted average price of retail cuts from pork & choice yield grade 3 beef. Prices from BLS. 3/ Value of wholesale (boxed beef) & wholesale cuts (pork) equivalent to 1 lb. of retail cuts adjusted for transportation costs & byproduct values. 4/ Market value to producer for live animal equivalent to 1 lb. of retail cuts, minus value of byproducts. 5/ Charges for retailing & other marketing services such as wholesaling, and in–city transportation. 6/ Charges for livestock marketing, processing, & transportation.

Note: Choice beef series reflects August 1990 revisions.

Information contacts: Denis Dunham (202) 786–1870, Larry Duewer (202) 786–1712.

Table 9.—Price Indexes of Food Marketing Costs

(See the September 1990 Issue.)
Information contact: Denis Dunham (202) 786-1870.

Livestock & Products

Table 10.—U.S. Meat Supply & Use

	Beg. stocks	Production 1/	Imports	Total supply	Exports	Ending stocks	Consumption: Total	Consumption: Per capita 2/	Primary market price 3/
	Million pounds 4/							Pounds	
Beef									
1988	386	23,589	2,379	26,354	680	422	25,252	72.3	69.54
1989	422	23,087	2,175	25,684	1,023	335	24,326	68.9	72.52
1990 F	335	22,803	2,250	25,388	1,050	325	24,013	67.4	75–77
1991 F	325	23,088	2,200	25,613	1,120	315	24,178	67.4	75–81
Pork									
1988	347	15,684	1,137	17,168	195	414	16,559	63.5	43.39
1989	414	15,813	896	17,123	262	285	16,576	63.2	44.03
1990 F	285	15,426	913	16,624	243	350	16,031	60.5	53–56
1991 F	350	15,904	975	17,229	265	375	16,589	62.2	49–55
Veal 5/									
1988	4	396	27	427	10	5	412	1.4	89.85
1989	5	355	0	360	0	4	356	1.2	91.84
1990 F	4	310	0	314	0	4	310	1.0	96–98
1991 F	4	289	0	293	0	4	289	0.9	98–102
Lamb & mutton									
1988	8	335	51	394	1	6	387	1.4	68.26
1989	6	347	63	416	2	8	406	1.5	67.32
1990 F	8	369	50	427	2	6	417	1.5	56–58
1991 F	8	369	55	432	2	7	423	1.5	54–60
Total red meat									
1988	745	40,004	3,594	44,343	886	847	42,610	138.6	—
1989	847	39,802	3,134	43,583	1,287	632	41,664	134.7	—
1990 F	632	38,908	3,213	42,753	1,295	687	40,771	130.5	—
1991 F	687	39,650	3,230	43,567	1,387	701	41,479	132.0	—
Broilers									
1988	25	16,187	0	16,212	765	36	15,410	62.6	56.3
1989	36	17,428	0	17,464	859	38	16,567	66.6	59.0
1990 F	38	18,586	0	18,625	1,087	30	17,507	69.7	54–56
1991 F	30	19,606	0	19,636	1,060	30	18,546	73.3	51–57
Mature chicken									
1988	168	633	0	821	26	157	639	2.6	—
1989	157	575	0	731	24	189	518	2.1	—
1990 F	189	595	0	784	28	180	576	2.3	
1991 F	180	581	0	761	26	180	555	2.2	
Turkeys									
1988	266	3,960	0	4,226	51	250	3,926	15.9	61.5
1989	250	4,276	0	4,526	40	236	4,250	17.1	66.7
1990 F	236	4,676	0	4,912	45	260	4,607	18.3	62–64
1991 F	260	4,891	0	5,151	45	250	4,856	19.2	61–67
Total poultry									
1988	479	20,780	0	21,259	842	442	19,975	81.1	—
1989	442	22,280	0	22,722	923	463	21,335	85.7	—
1990 F	463	23,858	0	24,321	1,160	470	22,691	90.4	
1991 F	470	25,078	0	25,548	1,131	460	23,957	94.7	
Red meat & poultry									
1988	1,224	60,784	3,594	65,601	1,728	1,289	62,584	219.7	—
1989	1,289	61,882	3,134	66,305	2,210	1,095	62,999	220.5	—
1990 F	1,095	62,766	3,213	67,074	2,455	1,157	63,462	220.9	—
1991 F	1,157	64,728	3,230	69,115	2,516	1,181	65,436	228.6	

1/ Total including farm production for red meats & federally inspected plus nonfederally inspected for poultry. 2/ Retail weight basis. (The beef carcass-to-retail conversion factor was .71 for 1987, & 70.5 for 1988–90.) 3/ Dollars per cwt for red meat; cents per pound for poultry. Beef: Choice steers, Omaha 1,000–1,100 lb.; pork: barrows and gilts, 7 markets; veal: farm price of calves; lamb & mutton: Choice slaughter lambs, San Angelo; broilers: wholesale 12-city average; turkeys: wholesale NY 8–16 lb. young hens. 4/ Carcass weight for red meats & certified ready-to-cook for poultry. 5/ Beginning 1989 veal trade no longer reported separately. F = forecast. — = not available.

Information contacts: Polly Cochran, or Maxine Davis (202) 786–1284.

Table 11.—U.S. Egg Supply & Use

	Beg. stocks	Pro-duc-tion	Im-ports	Total supply	Ex-ports	Hatch-ing use	Ending stocks	Consumption: Total	Consumption: Per capita	Wholesale price*
	Million dozen									Cts./doz.
1986	10.7	5,766.3	13.7	5,790.7	101.6	568.8	10.4	5,111.9	253.8	71.1
1987	10.4	5,868.2	5.6	5,884.2	111.2	599.1	14.4	5,159.5	253.8	61.6
1988	14.4	5,783.5	5.3	5,803.2	141.6	605.9	15.2	5,040.3	245.5	62.1
1989	15.2	5,586.8	25.2	5,627.1	91.6	642.5	10.7	4,882.4	235.5	81.9
1990 F	10.7	5,663.5	11.0	5,685.2	82.2	680.3	12.0	4,910.7	234.8	75–79
1991 F	12.0	5,715.0	8.0	5,735.0	92.0	720.0	12.0	4,911.0	232.9	67–71

* Cartoned grade A large eggs, New York. F = forecast

Information contact: Maxine Davis (202) 786–1714.

Table 12.—U.S. Milk Supply & Use[1]

	Pro-duc-tion	Farm use	Commercial: Farm market-ings	Commercial: Beg. stock	Im-ports	Total commer-cial supply	CCC net re-movals	Commercial: Ending stocks	Commercial: Disap-pear-ance	All milk price 2/
	Billion pounds									
1982	135.5	2.4	133.1	5.4	2.5	141.0	14.3	4.6	122.1	13.61
1983	139.6	2.4	137.2	4.6	2.6	144.4	16.8	5.2	122.4	13.58
1984	135.4	2.9	132.4	5.2	2.7	140.4	8.6	4.9	126.8	13.46
1985	143.0	2.5	140.6	4.9	2.8	148.3	13.2	4.6	130.5	12.75
1986	143.1	2.4	140.7	4.6	2.7	148.1	10.6	4.2	133.3	12.51
1987	142.7	2.3	140.5	4.2	2.5	147.1	6.7	4.6	135.8	12.54
1988	145.2	2.2	142.9	4.6	2.4	150.0	8.9	4.3	136.8	12.24
1989	144.3	2.1	142.2	4.3	2.5	148.9	9.0	4.1	135.8	13.54
1990 F	147.7	2.1	145.6	4.1	2.5	152.3	7.7	4.3	140.3	14.00

1/ Milkfat basis. Totals may not add because of rounding. 2/ Delivered to plants & dealers; does not reflect deductions. F = forecast.

Information contact: Jim Miller (202) 786–1770.

Table 13.—Poultry & Eggs

	Annual: 1987	Annual: 1988	Annual: 1989	1989: July	1990: Feb	1990: Mar	1990: Apr	1990: May	1990: June	1990: July
Broilers										
Federally inspected slaughter, certified (mil. lb.)	15,502.5	16,124.4	17,334.2	1,365.0	1,367.7	1,607.5	1,489.3	1,635.1	1,532.5	1,500.4
Wholesale price, 12-city (cts./lb.)	47.4	56.3	59.0	62.0	57.4	60.4	55.3	57.9	56.4	59.5
Price of grower feed ($/ton)	186	220	235	238	223	221	217	220	220	224
Broiler-feed price ratio 1/	3.1	3.1	2.8	3.3	3.0	3.3	3.1	3.2	3.1	3.3
Stocks beginning of period (mil. lb.)	23.9	24.8	35.9	34.3	28.2	22.7	31.4	32.9	30.9	30.0
Broiler-type chicks hatched (mil.) 2/	5,379.2	5,602.4	5,944.3	513.0	472.9	543.1	535.8	553.7	540.9	541.0
Turkeys										
Federally inspected slaughter, certified (mil. lb.)	3,717.1	3,923.4	4,174.8	360.4	297.8	366.8	328.4	384.1	389.2	395.4
Wholesale price, Eastern U.S., 8–16 lb. young hens (cts./lb.)	57.8	61.2	66.7	66.4	55.2	58.9	59.6	61.3	62.9	63.4
Price of turkey grower feed ($/ton)	213	243	252	251	241	240	239	239	239	240
Turkey-feed price ratio 1/	3.2	3.0	3.2	3.3	2.8	3.1	3.1	3.2	3.2	3.2
Stocks beginning of period (mil. lb.)	178.2	266.2	249.7	454.6	267.1	276.3	318.8	354.4	405.6	489.3
Poults placed in U.S. (mil.)	264.2	261.4	289.0	26.3	24.9	27.3	28.9	29.0	29.2	29.0
Eggs										
Farm production (mil.)	70,418	69,402	67,041	5,633	5,155	5,833	5,653	5,765	5,541	5,724
Average number of layers (mil.)	284	277	269	266	272	272	272	270	267	266
Rate of lay (eggs per layer on farms)	248	251	250	21.2	19.0	21.5	20.8	21.4	20.7	21.5
Cartoned price, New York, grade A large (cts./doz.) 3/	61.6	62.1	81.9	76.5	79.6	91.5	82.4	67.9	73.6	70.9
Price of laying feed ($/ton)	170	202	209	210	198	198	195	197	224	206
Egg-feed price ratio 1/	6.3	5.3	6.7	6.2	7.1	8.0	6.6	6.1	5.6	5.4
Stocks, first of month										
Shell (mil. doz.)	0.66	1.29	0.27	0.81	0.66	0.48	0.59	0.60	0.63	0.66
Frozen (mil. doz.)	9.8	13.1	14.9	11.4	10.8	11.5	12.7	13.1	12.6	13.7
Replacement chicks hatched (mil.)	428	368	384	29.8	32.2	36.4	37.2	37.7	34.5	31.7

1/ Pounds of feed equal in value to 1 dozen eggs or 1 lb. of broiler or turkey liveweight. 2/ Placement of broiler chicks is currently reported for 15 States only; henceforth, hatch of broiler-type chicks will be used as a substitute. 3/ Price of cartoned eggs to volume buyers for delivery to retailers.

Information contact: Maxine Davis (202) 786–1714.

Table 14.—Dairy

	Annual			1989	1990					
	1987	1988	1989	July	Feb	Mar	Apr	May	June	July
Milk prices, Minnesota–Wisconsin, 3.5% fat ($/cwt) 1/	11.23	11.03	12.37	11.76	12.21	12.02	12.32	12.78	13.28	13.43
Wholesale prices										
Butter, grade A Chi. (cts./lb.)	140.2	132.5	127.9	130.3	108.3	108.3	106.9	99.0	98.4	100.3
Am. cheese, Wis. assembly pt. (cts./lb.)	123.2	123.8	138.8	140.6	131.6	130.7	140.5	145.7	149.5	151.0
Nonfat dry milk (cts./lb.) 2/	79.3	80.2	105.5	96.2	82.3	86.6	104.3	125.4	129.2	125.2
USDA net removals										
Total milk equiv. (mil. lb.) 3/	6,706.0	8,856.2	8,967.9	167.1	1,244.9	936.7	974.5	1,014.2	498.6	324.8
Butter (mil. lb.)	187.3	312.6	413.4	7.7	59.9	45.0	46.9	48.9	23.9	23.9
Am. cheese (mil. lb.)	282.0	238.1	37.4	0.2	0	0	0	0	0	0
Nonfat dry milk (mil. lb.)	559.4	267.5	0	0	–0.7	0	0	0	0	0
Milk										
Milk prod. 21 States (mil. lb.)	121,431	123,518	122,531	10,183	9,813	10,997	10,842	11,226	10,696	10,702
Milk per cow (lb.)	13,969	14,291	14,370	1,199	1,150	1,292	1,274	1,319	1,257	1,258
Number of milk cows (1,000)	8,693	8,643	8,527	8,491	8,534	9,510	8,507	8,513	8,512	8,508
U.S. milk production (mil. lb.)	142,709	145,152	144,252	11,974	6/ 11,586	6/ 12,983	6/ 12,762	6/ 13,215	6/ 12,585	6/ 12,584
Stock, beginning										
Total (mil. lb.)	12,867	7,440	8,234	13,960	9,294	9,819	10,651	11,419	12,465	13,241
Commercial (mil. lb.)	4,165	4,646	4,289	5,911	4,509	4,712	5,008	5,145	5,383	5,495
Government (mil. lb.)	8,702	2,794	3,945	8,048	4,785	5,107	5,643	6,272	7,082	7,746
Imports, total (mil. lb.) 3/	2,490	2,394	2,499	190	194	195	253	216	258	—
Commercial disappearance (mil. lb.)	135,754	136,805	135,643	11,754	10,173	11,770	11,733	12,004	12,042	—
Butter										
Production (mil. lb.)	1,104.1	1,207.5	1,273.5	72.9	115.7	120.2	120.0	120.5	95.9	85.1
Stocks, beginning (mil. lb.)	193.0	143.2	214.7	464.1	262.0	285.1	318.8	349.1	392.2	417.2
Commercial disappearance (mil. lb.)	902.5	909.8	854.1	61.5	54.3	72.6	75.0	68.9	80.2	—
American cheese										
Production (mil. lb.)	2,716.7	2,756.6	2,672.6	221.4	239.8	255.2	249.9	264.7	252.5	236.4
Stocks, beginning (mil. lb.)	697.1	370.4	293.0	319.8	262.1	272.4	292.7	299.6	314.1	333.1
Commercial disappearance (mil. lb.)	2,437.1	2,570.0	2,681.6	222.1	229.6	235.3	243.9	251.8	237.0	—
Other cheese										
Production (mil. lb.)	2,627.7	2,815.4	2,941.3	237.5	232.1	274.8	265.1	280.8	276.3	266.2
Stocks, beginning (mil. lb.)	92.0	89.7	104.7	121.0	99.3	103.8	104.0	112.7	119.5	129.1
Commercial disappearance (mil. lb.)	2,880.2	3,034.5	3,208.9	259.5	246.1	294.8	278.6	297.7	293.2	—
Nonfat dry milk										
Production (mil. lb.)	1,056.8	979.7	874.7	61.2	71.2	77.4	90.0	95.1	83.3	72.7
Stocks, beginning (mil. lb.)	686.8	177.2	53.1	108.7	48.4	58.8	61.8	62.8	70.8	93.3
Commercial disappearance (mil. lb.)	492.9	734.3	873.0	72.0	64.3	75.3	86.9	87.6	61.0	—
Frozen dessert										
Production (mil. gal.) 4/	1,260.7	1,248.0	1,214.0	119.7	85.4	103.9	104.1	114.2	119.0	125.3

	Annual			1988	1989				1990	
	1987	1988	1989	IV	I	II	III	IV	I P	II P
Milk production (mil. lb.)	142,709	145,152	144,252	35,282	36,445	37,702	35,188	34,917	36,940	38,542
Milk per cow (lb.)	13,819	14,145	14,244	3,447	3,586	3,727	3,484	3,448	3,644	3,807
No. of milk cows (1,000)	10,327	10,262	10,127	10,229	10,164	10,116	10,101	10,127	10,137	10,124
Milk-feed price ratio 5/	1.84	1.58	1.64	1.59	1.58	1.48	1.63	1.92	1.83	1.67
Returns over concentrate 5/ costs ($/cwt milk)	9.52	9.05	10.08	9.86	9.69	8.96	9.92	12.16	11.32	10.20

1/ Manufacturing grade milk. 2/ Prices paid f.o.b. Central States production area. 3/ Milk equivalent, fat basis. 4/ Hard ice cream, ice milk, & hard sherbet. 5/ Based on average milk price after adjustment for price support deductions. 6/ Estimated. P = preliminary. — = not available.

Information contact: Jim Miller (202) 786–1770.

Table 15.—Wool

	Annual			1989				1990	
	1987	1988	1989	I	II	III	IV	I	II
U.S. wool price, (cts./lb.) 1/	265	438	370	433	372	350	328	289	272
Imported wool price, (cts./lb.) 2/	247	372	354	392	322	309	316	306	292
U.S. mill consumption, scoured 3/									
Apparel wool (1,000 lb.)	129,677	117,069	112,998	32,103	29,991	25,983	24,921	29,948	30,066
Carpet wool (1,000 lb.)	13,092	15,633	14,122	3,294	3,979	3,865	2,984	3,779	3,607

1/ Wool price delivered at U.S. mills, clean basis, Graded Territory 64's (20.60–22.04 microns) staple 2-3/4" & up. 2/ Wool price, Charleston, SC warehouse, clean basis, Australian 60/62's, type 64A (24 micron). Duty since 1982 has been 10.0 cents. 3/ Beginning 1990 mill consumption reported only on a quarterly basis. — = not available.

Information contact: John Lawler (202) 786–1640.

Table 16.—Meat Animals

	Annual			1989	1990					
	1987	1988	1989	July	Feb	Mar	Apr	May	June	July
Cattle on feed (7 States)										
Number on feed (1,000 head) 1/	7,953	8,411	8,045	7,235	8,526	8,319	8,483	8,181	7,867	7,310
Placed on feed (1,000 head)	21,040	20,654	20,834	1,291	1,403	1,902	1,377	1,632	1,340	1,520
Marketings (1,000 head)	19,545	19,918	19,422	1,700	1,515	1,618	1,554	1,796	1,824	1,750
Other disappearance (1,000 head)	1,217	1,202	1,079	63	95	120	125	150	73	77
Beef steer–corn price ratio, Omaha 2/	41.0	31.5	30.3	29.6	34.0	32.6	31.1	29.3	27.9	28.5
Hog–corn price ratio, Omaha 2/	32.8	19.6	18.4	19.6	22.0	21.9	21.2	23.6	22.4	23.9
Market prices ($/cwt)										
Slaughter cattle										
Choice steers, Omaha	84.60	69.54	72.52	70.74	76.61	78.15	79.36	77.57	75.63	74.46
Utility cows, Omaha	44.83	46.55	47.86	49.12	52.79	54.67	54.48	55.41	56.04	54.56
Feeder cattle										
Choice, Kansas City, 600–700 lb.	75.36	83.67	86.13	87.13	84.88	87.50	90.81	91.90	94.13	93.50
Slaughter hogs										
Barrows & gilts, 7–markets	51.69	43.39	44.03	47.06	48.51	51.91	54.11	62.18	60.75	61.67
Feeder pigs										
S. Mo. 40–50 lb. (per head)	46.69	36.06	33.63	24.25	54.41	63.19	64.97	56.80	47.32	46.38
Slaughter sheep & lambs										
Lambs, Choice, San Angelo	78.09	68.26	67.32	67.79	60.38	63.69	63.13	62.25	53.56	53.25
Ewes, Good, San Angelo	38.62	38.88	38.58	31.92	36.47	38.81	36.50	33.25	32.38	34.83
Feeder lambs										
Choice, San Angelo	102.26	90.89	79.65	74.08	74.88	75.63	71.31	64.30	56.50	53.75
Wholesale meat prices, Midwest										
Boxed beef cut-out value*	103.84	110.50	114.78	113.17	120.97	122.10	123.62	124.56	121.53	118.54
Canner & cutter cow beef	85.26	87.77	94.43	95.24	100.95	102.04	100.61	101.29	101.51	101.62
Pork loins, 14–18 lb. 3/	106.23	97.49	101.09	115.10	107.75	117.26	120.68	136.06	125.62	144.14
Pork bellies, 12–14 lb.	63.11	41.25	34.14	31.52	42.53	42.60	52.60	61.48	65.15	53.18
Hams, skinned, 14–17 lb.	80.96	71.03	69.39	64.23	76.50	79.00	77.33	81.60	NQ	NQ
All fresh beef retail price 4/	212.64	224.81	238.97	240.57	249.14	249.10	252.88	251.52	254.05	255.78
Commercial slaughter (1,000 head)*										
Cattle	35,647	35,079	33,917	2,793	2,502	2,764	2,618	2,989	2,934	2,852
Steers	17,443	17,344	16,536	1,384	1,241	1,398	1,348	1,547	1,518	1,450
Heifers	10,906	10,754	10,406	903	769	834	771	894	913	910
Cows	6,610	6,337	6,316	452	446	481	448	490	448	439
Bulls & stags	689	644	659	54	46	51	51	58	55	53
Calves	2,815	2,506	2,172	174	150	171	132	142	137	144
Sheep & lambs	5,199	5,293	5,464	415	441	493	487	478	440	447
Hogs	81,061	87,795	88,693	6,301	6,820	7,454	6,959	6,976	6,322	6,154
Commercial production (mil. lb.)										
Beef	23,405	23,424	22,974	1,888	1,705	1,870	1,747	2,007	1,979	1,939
Veal	416	387	344	27	24	28	23	26	25	26
Lamb & mutton	309	329	341	25	29	32	31	31	28	28
Pork	14,312	15,623	15,759	1,108	1,215	1,328	1,247	1,256	1,142	1,102

	Annual			1989				1990		
	1987	1988	1989	I	II	III	IV	I	II	III
Cattle on feed (13 States)										
Number on feed (1,000 head) 1/	9,555	10,114	9,688	9,686	9,918	8,680	8,276	9,943	10,063	8,761
Placed on feed (1,000 head)	25,074	24,423	24,484	6,232	5,212	5,719	7,321	6,088	5,111	—
Marketings (1,000 head)	23,126	23,459	22,955	5,658	6,040	5,896	5,361	5,583	6,013 6/	5,906
Other disappearance (1,000 head)	1,389	1,390	1,274	344	410	227	293	385	400	—
Hogs & pigs (10 States) 5/										
Inventory (1,000 head) 1/	39,730	42,675	43,210	43,210	41,655	44,020	45,200	42,200	40,190	42,930
Breeding (1,000 head) 1/	5,125	5,435	5,335	5,335	5,440	5,565	5,335	5,280	5,250	5,465
Market (1,000 head) 1/	34,605	37,240	37,875	37,875	36,215	38,455	39,865	36,920	34,940	37,465
Farrowings (1,000 head)	8,853	9,370	9,203	2,109	2,580	2,324	2,190	2,013	2,465 6/	2,319
Pig crop (1,000 head)	68,955	72,268	71,807	16,441	20,309	18,167	16,890	15,746	19,633	—

1/ Beginning of period. 2/ Bushels of corn equal in value to 100 pounds live weight. 3/ Prior to 1984, 8–14 lb.; 1984 & 1985, 14–17 lb; beginning 1986, 14–18 lb. 4/ New series estimating the composite price of all beef grades & ground beef sold by retail stores. This new series is in addition to, but does not replace, the series for the retail price of Choice beef that appears in table 6. 5/ Quarters are Dec. of preceding year–Feb. (I), Mar.–May (II), June–Aug. (III), & Sept–Nov. (IV). 6/ Intentions. *Classes estimated. NQ = not quote. — = not available.

Note: *This series replaces the Choice steer beef price, 600–700 lb., which was discontinued with the June number. The new number is the value of Choice beef from a yield grade 1–3, 550–700 lb. carcass.

Information contact: Polly Cochran (202) 786–1284.

Crops & Products

Table 17.—Supply & Utilization[1,2]

	Area											
	Set aside 3/	Planted	Harvested	Yield	Production	Total supply 4/	Feed and residual	Other domestic use	Exports	Total use	Ending stocks	Farm price 5/
	Mil. acres			Bu./acre				Mil. bu.				$/bu.
Wheat												
1985/86	18.8	75.6	64.7	37.5	2,424	3,855	284	767	909	1,960	1,905	3.08
1986/87	21.0	72.1	60.7	34.4	2,091	4,017	401	796	999	2,196	1,821	2.42
1987/88	23.9	65.8	56.0	37.7	2,108	3,945	280	806	1,598	2,684	1,261	2.57
1988/89*	22.5	65.5	53.2	34.1	1,812	3,096	157	818	1,419	2,394	702	3.72
1989/90*	9.6	76.6	62.1	32.8	2,036	2,761	160	833	1,233	2,226	535	3.72
1990/91*	6.6	77.3	69.9	39.4	2,755	3,311	400	840	1,125	2,365	946	2.55–2.85
	Mil. acres			Lb./acre				Mil. cwt (rough equiv.)				$/cwt
Rice												
1985/86	1.24	2.51	2.49	5,414	134.9	201.8	—	6/ 65.8	58.7	124.5	77.3	6.53
1986/87	1.48	2.38	2.36	5,651	133.4	213.3	—	6/ 77.7	84.2	161.9	51.4	3.75
1987/88	1.57	2.36	2.33	5,555	129.6	184.0	—	6/ 80.4	72.2	152.6	31.4	7.27
1988/89*	1.09	2.93	2.90	5,514	159.9	195.4	—	6/ 82.8	85.9	168.7	26.7	6.83
1989/90*	1.21	2.73	2.69	5,749	154.5	186.2	—	6/ 85.4	77.0	162.4	23.8	7.25–7.80
1990/91*		2.87	2.82	5,611	158.1	187.5	—	6/ 87.6	74.0	161.6	25.9	5.50–7.50
	Mil. acres			Bu./acre				Mil. bu.				$/bu.
Corn												
1985/86	5.4	83.4	75.2	118.0	8,875	10,534	4,107	1,160	1,227	6,494	4,040	2.23
1986/87	14.3	76.7	68.9	119.4	8,226	12,267	4,701	1,192	1,492	7,325	4,882	1.50
1987/88	23.1	65.2	59.5	119.8	7,131	12,016	4,812	1,229	1,716	7,757	4,259	1.94
1988/89*	20.5	67.7	58.3	84.6	4,929	9,191	3,987	1,245	2,028	7,260	1,930	2.54
1989/90*	10.8	72.3	64.8	116.2	7,527	9,460	4,500	1,280	2,350	8,130	1,330	2.38
1990/91*	9.8	74.5	66.7	121.7	8,115	9,450	4,700	1,300	2,075	8,075	1,375	2.10–2.50
	Mil. acres			Bu./acre				Mil. bu				$/bu.
Sorghum												
1985/86	0.9	18.3	16.8	66.8	1,120	1,420	664	28	178	869	551	1.93
1986/87	3.0	15.3	13.9	67.7	938	1,489	535	12	198	746	743	1.37
1987/88	4.1	11.8	10.5	69.4	731	1,474	555	25	231	811	663	1.70
1988/89*	3.9	10.3	9.0	63.8	577	1,239	468	22	310	800	440	2.27
1989/90*	3.3	12.6	11.2	55.4	618	1,057	505	15	285	805	252	2.12
1990/91*	2.9	10.7	9.3	61.8	572	825	440	15	225	680	145	1.90–2.30
	Mil. acres			Bu./acre				Mil. bu.				$/bu.
Barley												
1985/86	0.7	13.2	11.6	51.0	591	848	333	169	22	523	325	1.98
1986/87	2.1	13.1	12.0	50.8	611	944	298	174	137	608	336	1.61
1987/88	2.9	11.0	9.9	52.4	521	869	254	174	120	548	321	1.81
1988/89*	2.8	9.8	7.6	38.0	290	622	166	180	79	425	196	2.80
1989/90*	2.3	9.2	8.3	48.6	403	614	184	180	89	453	161	2.42
1990/91*	2.4	8.3	7.7	53.9	409	585	175	185	85	445	140	2.00–2.30
	Mil. acres			Bu./acre				Mil. bu.				$/bu.
Oats												
1985/86	0.1	13.3	8.2	63.7	521	728	460	82	2	544	184	1.23
1986/87	0.6	14.7	6.9	56.3	386	603	395	73	3	471	133	1.21
1987/88	0.8	18.0	6.9	54.0	374	552	358	81	1	440	112	1.56
1988/89*	0.3	13.9	5.5	39.3	218	393	194	100	1	294	98	2.81
1989/90*	0.4	12.1	6.9	54.4	374	545	271	115	1	387	157	1.49
1990/91*	0.2	10.4	6.2	59.0	365	568	315	120	1	436	132	1.10–1.30
	Mil. acres			Bu./acre				Mil. bu.				$/bu.
Soybeans												
1985/86	0	63.1	61.6	34.1	2,099	2,415	0	1,053	740	1,679	536	5.05
1986/87	0	60.4	58.3	33.3	1,940	2,476	0	1,179	757	2,040	436	4.79
1987/88	0	58.2	57.2	33.9	1,938	2,374	0	1,174	802	2,072	302	5.88
1988/89*	0	58.8	57.4	27.0	1,549	1,855	0	1,058	527	1,673	182	7.42
1989/90*	0	60.7	59.4	32.4	1,927	2,112	0	1,145	620	1,862	250	5.70
1990/91*	0	57.7	56.6	32.4	1,835	2,090	0	1,180	615	1,890	200	5.50–7.00
								Mil. lbs.				7/ Cts./lb.
Soybean oil												
1985/86	—	—	—	—	11,617	12,257	—	10,053	1,257	11,310	947	18.00
1986/87	—	—	—	—	12,783	13,745	—	10,833	1,187	12,020	1,725	15.40
1987/88	—	—	—	—	12,974	8/ 14,895	—	10,930	1,873	12,803	2,092	22.65
1988/89*	—	—	—	—	11,737	8/ 13,967	—	10,591	1,661	12,252	1,715	21.10
1989/90*	—	—	—	—	12,675	8/ 14,840	—	12,000	1,500	13,500	1,140	22.20
1990/91*	—	—	—	—	13,000	8/ 14,240	—	12,000	1,300	13,300	940	23.0–26.0
								1,000 tons				9/ $/ton
Soybean meal												
1985/86	—	—	—	—	24,851	25,338	—	19,090	6,036	25,126	212	155
1986/87	—	—	—	—	27,758	27,970	—	20,387	7,343	27,730	240	183
1987/88	—	—	—	—	28,060	28,300	—	21,293	6,854	28,147	153	222
1988/89*	—	—	—	—	24,943	25,100	—	19,639	6,288	24,927	173	233
1989/90*	—	—	—	—	27,507	27,685	—	22,500	4,935	27,435	250	172
1990/91*	—	—	—	—	28,095	28,350	—	22,600	5,600	28,100	250	165–195

See footnotes at end of table.

Table 17.—Supply & Utilization, continued

	Area						Feed and residual	Other domestic use	Exports	Total use	Ending Stocks	Farm price 5/
	Set Aside 3/	Planted	Harvested	Yield	Production	Total supply 4/						
	Mil. acres			Lb./acre	Mil. bales							
Cotton 10/												
1985/86	3.6	10.7	10.2	630	13.4	17.6	—	6.4	2.0	8.4	9.4	56.50
1986/87	4.2	10.0	8.5	552	9.7	19.1	—	7.4	6.7	14.1	5.0	52.40
1987/88	3.9	10.4	10.0	706	14.8	19.8	—	7.6	6.6	14.2	5.8	64.30
1988/89*	2.2	12.5	12.0	619	15.4	21.2	—	7.8	6.2	13.9	7.1	56.60
1989/90*	3.5	10.6	9.5	614	12.2	19.3	—	8.8	7.8	16.5	3.0	65.60
1990/91*	1.9	12.3	11.5	616	14.7	17.7	—	8.2	6.8	15.0	2.8	—

*September 12, 1990 Supply and Demand Estimates. 1/ Marketing year beginning June 1 for wheat, barley, & oats, August 1 for cotton & rice, September 1 for soybeans, corn, & sorghum, October 1 for soymeal & soyoil. 2/ Conversion factors: Hectare (ha.) = 2.471 acres, 1 metric ton = 2204.622 pounds, 36.7437 bushels of wheat or soybeans, 39.3679 bushels of corn or sorghum, 45.9296 bushels of barley, 68.8944 bushels of oats, 22.046 cwt of rice, and 4.59 480–pound bales of cotton. 3/ Includes diversion, PIK, acreage reduction, 50–92, & 0–92 programs. 4/ Includes imports. 5/ Market average prices do not include an allowance for loans outstanding & Government purchases. 6/ Residual included in domestic use. 7/ Average of crude soybean oil, Decatur. 8/ Includes 196 million pounds in imports for 1987/88, 138 million in 1988/89, 15 million in 1989/90, & 50 million in 1990/91. 9/ Average of 44 percent, Decatur. 10/ Upland & extra long staple. Stocks estimates based on Census Bureau data, resulting in an unaccounted difference between supply & use estimates & changes in ending stocks. — = not available or not applicable.

Information contact: Commodity Economics Division, Crops Branch (202) 786–1840.

Table 18.—Food Grains

	Marketing year 1/			1989	1990				
	1985/86	1986/87	1987/88	1988/89	July	Mar	Apr	May	June	July
Wholesale prices										
Wheat, No. 1 HRW, Kansas City ($/bu.) 2/	3.26	2.72	2.96	4.17	4.26	4.04	4.13	3.91	3.60	3.11
Wheat, DNS, Minneapolis ($/bu.) 2/	3.25	2.62	2.92	4.25	4.21	NQ	NQ	NQ	NQ	NQ
Rice, S.W. La. ($/cwt) 3/	16.11	10.25	19.25	14.85	15.60	15.40	15.66	15.80	15.65	15.30
Wheat										
Exports (mil. bu.)	915	1,004	1,592	1,424	140	109	91	75	—	—
Mill grind (mil. bu.)	703	755	753	776	—	67	62	64	—	—
Wheat flour production (mil. cwt)	314	335	336	348	—	29	27	28	—	—
Rice										
Exports (mil. cwt, rough equiv.)	58.7	84.2	72.2	85.6	5.2	8.0	7.3	4.8	4.4	—

	Marketing year 1/			1988	1989				1990	
	1986/87	1987/88	1988/89	Sept–Nov	Dec–Feb	Mar–May	June–Aug	Sept–Nov	Dec–Feb	Mar–May
Wheat										
Stocks, beginning (mil. bu.)	1,905	1,821	1,261	2,253.6	1,715.9	1,227.7	701.6	1,917.2	1,423.7	943.1
Domestic use										
Food (mil. bu.)	712	721	715	197.3	168.9	165.0	183.1	183.1	180.5	184.3
Seed, feed & residual (mil. bu.) 4/	485	365	260	17.6	–37.8	–2.8	273.1	–12.8	45.0	–43.3
Exports (mil. bu.)	999	1,598	1,419	329.0	360.5	368.0	369.9	328.6	259.7	534.8

1/ Beginning June 1 for wheat & August 1 for rice. 2/ Ordinary protein. 3/ Long grain, milled basis. 4/ Residual includes feed use — = not available. NQ = no quote.

Information contacts: Ed Allen & Janet Livezay (202) 786–1840.

Table 19.—Cotton

	Marketing year 1/				1989	1990				
	1985/86	1986/87	1987/88	1988/89	July	Mar	Apr	May	June	July
U.S. price, SLM, 1–1/16 in. (cts./lb.) 2/	60.0	53.2	63.1	57.7	67.4	68.1	71.3	74.6	77.1	79.5
Northern Europe prices										
Index (cts./lb.) 3/	48.9	62.0	72.7	66.4	83.0	79.2	83.0	86.9	90.3	90.9
U.S. M 1–3/32 in. (cts./lb.) 4/	64.8	61.8	76.3	69.2	82.8	80.2	84.6	88.9	92.7	95.9
U.S. mill consumpt. (1,000 bales)	6,399	7,452	7,617	7,782	613	746	700	789	723	641
Exports (1,000 bales)	1,969	6,684	6,582	8,148	902	997	734	590	538	—
Stocks, beginning (1,000 bales)	4,102	9,348	5,026	5,771	6,770	9,841	8,099	6,665	5,287	4,026

1/ Beginning August 1. 2/ Average spot market. 3/ Liverpool Cotlook (A) index; average of five lowest priced of 11 selected growths. 4/ Memphis territory growths. — = not available.

Information contact: Scott Sanford (202) 786–1840.

Table 20.—Feed Grains

	Marketing year 1/				1989	1990				
	1985/86	1986/87	1987/88	1988/89	July	Mar	Apr	May	June	July
Wholesale prices										
Corn, no. 2 yellow, 30 day, Chicago ($/bu.)	2.35	1.64	2.14	2.68	2.50	2.50	2.72	2.83	2.84	2.73
Sorghum, no. 2 yellow, Kansas City ($/cwt)	3.72	2.73	3.40	4.17	3.96	3.46	4.32	4.47	4.54	4.82
Barley, feed, Duluth ($/bu.) 2/	1.53	1.44	1.78	2.31	2.22	2.27	2.27	2.33	2.39	2.17
Barley, malting, Minneapolis ($/bu.)	2.24	1.89	2.04	4.11	3.33	2.83	2.97	3.17	2.92	2.38
Exports 3/										
Corn (mil. bu.)	1,241	1,504	1,723	2,036	133	192	194	214	201	148
Feed grains (mil. metric tons) 4/	36.6	46.3	52.3	61.3	4.2	5.8	5.7	6.2	5.6	4.3

	Marketing year 1/				1989			1990		
	1985/86	1986/87	1987/88	1988/89	Mar–May	June–Aug	Sept–Nov	Dec–Feb	Mar–May	June–Aug
Corn										
Stocks, beginning (mil. bu.)	1,648	4,040	4,882	4,259	5,204	3,419	1,930	7,079	4,813	2,639
Domestic use										
Feed (mil. bu.)	4,095	4,714	4,805	3,979	849	690	1,499	1,290	1,022	689
Food, seed, ind. (mil. bu.)	1,160	1,192	1,229	1,245	337	330	298	295	351	336
Exports (mil. bu.)	1,241	1,504	1,723	2,036	600	470	582	682	601	485
Total use (mil. bu.)	6,496	7,410	7,757	7,260	1,787	1,490	2,379	2,267	1,974	1,510

1/ September 1 for corn & sorghum; June 1 for oats & barley. 2/ Beginning March 1987 reporting point changed from Minneapolis to Duluth. 3/ Includes products. 4/ Aggregated data for corn, sorghum, oats, & barley.

Information contact: James Cote (202) 786–1840.

Table 21.—Fats & Oils

	Marketing year *				1989	1990				
	1985/86	1986/87	1987/88	1988/89	June	Feb	Mar	Apr	May	June
Soybeans										
Wholesale price, no. 1 yellow, Chicago ($/bu.)	5.20	5.03	6.67	7.41	7.17	5.66	5.85	5.98	6.22	6.01
Crushings (mil. bu.)	1,052.6	1,176.6	1,174.5	1,057.7	76.0	91.8	102.8	95.1	93.4	91.9
Exports (mil. bu.)	740.7	756.9	801.6	530.6	31.2	75.0	88.0	43.6	23.1	35.2
Stocks, beginning (mil. bu.)	316.0	536.4	436.4	302.5	52.5	93.6	91.4	83.4	73.0	67.5
Soybean oil										
Wholesale price, crude, Decatur (cts./lb.)	18.02	15.36	22.67	21.09	20.8	19.3	21.8	24.2	23.7	24.9
Production (mil. lb.)	11,617.3	12,783.1	12,974.5	11,737.0	856.2	1,021.7	1,142.4	1,066.6	1,050.1	1,035.6
Domestic disap. (mil. lb.)	10,045.9	10,820.2	10,734.1	10,455.6	844.3	900.1	986.0	1,012.7	1,103.5	1,003.1
Exports (mil. lb.)	1,257.3	1,184.5	1,873.2	1,658.2	72.1	136.2	164.4	33.0	112.1	161.9
Stocks, beginning (mil. lb.)	632.5	946.8	1,725.0	2,092.2	2,743.2	1,717.5	1,702.9	1,694.9	1,716.8	1,550.9
Soybean meal										
Wholesale price, 44% protein, Decatur ($/ton)	154.88	162.61	221.90	233.46	227.50	161.90	165.10	165.40	176.60	169.10
Production (1,000 ton)	24,951.3	27,758.8	28,060.2	24,942.7	1,802.9	2,170.9	2,432.3	2,263.7	2,224.2	2,163.4
Domestic disap. (1,000 ton)	19,117.2	20,387.4	21,275.9	19,792.5	1,664.6	1,602.8	1,815.6	1,834.9	1,853.1	1,495.3
Exports (1,000 ton)	6,009.3	7,343.0	6,871.0	5,130.8	180.8	560.1	566.8	433.0	426.3	415.6
Stocks, beginning (1,000 ton)	386.9	211.7	240.2	153.5	260.4	254.0	262.0	311.8	307.7	252.5
Margarine, wholesale price, Chicago, white (cts./lb.)	51.2	40.3	40.3	52.3	53.8	53.6	54.2	54.3	60.0	63.6

* Beginning September 1 for soybeans; October 1 for soymeal & oil; calendar year for margarine.

Information contacts: Roger Hoskin (202) 786–1840, Tom Bickerton (202) 786–1824.

Table 22.—Farm Programs, Price Supports, Participation & Payment Rates

	Target price	Loan rate	Findley loan rate	Payment rates: Deficiency	Payment rates: Paid land diversion	Payment rates: PIK	Base acres 1/	Program 2/	Participation rate 3/
			$/bu.			Percent 4/	Mil. acres		Percent of base
Wheat									
1984/85	4.38	3.30	---	1.00	2.70	85	94.0	20/10/10-20	60/60/20
1985/86	4.38	3.30	---	1.08	2.70	---	94.0	20/10/0	73
1986/87 5/	4.38	3.00	2.40	1.98	2.00	1.10	91.6	22.5/2.5/5-10	85/85/21
1987/88	4.38	2.85	2.28	1.81	---	---	87.6	27.5/0/0	88
1988/89	4.23	2.76	2.21	0.69	---	---	84.8	27.5/0/0	86
1989/90	4.10	2.58	2.06	7/ 0.32	---	---	82.3	10/0/0	78
1990/91	4.00	2.44	1.95	1.00	---	---	80.5	* 5/0/0	80
			$/cwt						
Rice									
1984/85	11.90	8.00	---	3.76	---	---	4.1	25/0/0	85
1985/86	11.90	8.00	6/ 3.16	3.90	3.50	---	4.2	20/15/0	90
1986/87 5/	11.90	7.20	6/ 3.82	4.70	---	---	4.2	35/0/0	94
1987/88	11.66	6.84	6/ 5.77	4.82	---	---	4.1	35/0/0	96
1988/89	11.15	6.63	6/ 6.30	4.31	---	---	4.1	25/0/0	94
1989/90	10.60	6.50	6/ 6.50	3.56	---	---	4.1	25/0/0	95
1990/91	10.71	6.50	---	3.71	---	---	4.2	20/0/0	92
			$/bu.						
Corn									
1984/85	3.03	2.55	---	0.43	---	---	80.8	10/0/0	54
1985/86	3.03	2.55	---	0.48	---	---	84.2	10/0/0	59
1986/87 5/	3.03	2.40	1.92	1.11	---	---	81.7	17.5/2.5/0	86
1987/88	3.03	2.28	1.82	1.09	2.00	---	81.5	20/15/0	90
1988/89	2.93	2.21	1.77	7/ 0.36	1.75	---	82.9	20/10/0; 0/92	87
1989/90	2.84	2.06	1.65	7/ 0.58	---	---	82.7	10/0/0; 0/92	80
1990/91	2.75	1.96	1.57	0.15	---	---	82.7	10/0/0; 0/92	78
			$/bu.						
Sorghum									
1984/85	2.88	2.42	---	0.46	---	---	18.4	8/ (same)	42
1985/86	2.88	2.42	---	0.46	---	---	19.3	---	55
1986/87 5/	2.88	2.28	1.82	1.06	0.65	---	19.0	---	75
1987/88	2.88	2.17	1.74	0.82	1.90	---	17.4	---	84
1988/89	2.78	2.10	1.65	0.48	1.65	---	16.8	---	82
1989/90	2.70	1.96	1.57	7/ 0.66	---	---	16.2	---	71
1990/91	2.81	1.86	1.49	0.21	---	---	15.4	---	75
			$/bu.						
Barley									
1984/85	2.60	2.08	---	0.26	---	---	11.6	8/ (same)	44
1985/86	2.60	2.08	---	0.52	---	---	13.3	---	57
1986/87 5/	2.60	1.95	1.56	0.99	0.57	---	12.4	---	72
1987/88	2.60	1.86	1.49	0.52	1.60	---	12.5	---	84
1988/89	2.51	1.80	1.44	1.04	1.40	---	12.5	---	79
1989/90	2.43	1.68	1.34	7/ 0.23	---	---	12.4	---	69
1990/91	2.36	1.60	1.28	0.26	---	---	11.9	---	66
			$/bu.						
Oats									
1984/85	1.60	1.31	---	0.00	---	---	9.8	8/ (same)	14
1985/86	1.60	1.31	---	0.29	---	---	9.4	---	14
1986/87 5/	1.60	1.23	0.99	0.39	0.36	---	9.2	---	37
1987/88	1.60	1.17	0.94	0.20	0.80	---	8.4	---	45
1988/89	1.55	1.13	0.90	0.30	---	---	7.9	5/0/0; 0/92	30
1989/90	1.50	1.06	0.85	0.00	---	---	7.6	5/0/0; 0/92	23
1990/91	1.45	1.01	0.81	0.00	---	---	7.5	5/0/0; 0/92	10
			$/bu.						
Soybeans 9/									
1984/85	---	5.02	---	---	---	---	---	---	---
1985/86	---	5.02	---	---	---	---	---	---	---
1986/87 5/	---	4.77	---	---	---	---	---	---	---
1987/88	---	4.77	---	---	---	---	---	---	---
1988/89	---	4.77	---	---	---	---	---	---	---
1989/90	---	4.53	---	---	---	---	---	10/ 10/25	---
1990/91	---	4.50	---	---	---	---	---	10/ 0/25	---
			Cts./lb.						
Upland cotton									
1984/85	81.0	55.00	---	18.60	---	---	15.6	25/0/0	70
1985/86	81.0	57.30	---	23.70	30.00	---	15.9	20/10/0	82/0/0
1986/87 5/	81.0	55.00	11/ 44.00	26.00	---	---	15.5	25/0/0	93
1987/88	79.4	52.25	12/ ---	17.3	---	---	14.5	25/0/0	93
1988/89	75.9	51.80	12/ ---	19.4	---	---	14.5	12.5/0/0	89
1989/90	73.4	50.00	12/ ---	13.1	---	---	14.8	25/0/0	89
1990/91	72.9	50.27	12/ ---	6.3	---	---	14.5	12.5/0/0	86

1/ Includes planted area plus acres considered planted (ARP, PLD, 0–92 etc). Net of CRP. 2/ Percentage of base acres that farmers participating in Acreage Reduction Programs/Paid Land Diversion/PIK were required to devote to conserving uses to receive program benefits. 3/ Percentage of base acres enrolled in Acreage Reduction Programs/Paid Land Diversion/PIK. 4/ Percent of program yield, except 1986/87 wheat, which is dollars per bushel. 1984 PIK rates apply only to the 10–20 portion. 5/ Rates for payments received in cash were reduced by 4.3 percent in 1986/87 due to Gramm–Rudman–Hollings. 6/ Annual average world market price. 7/ Guaranteed to farmers signed up for 0/92. 8/ The sorghum, oats, & barley programs were the same as for corn in each year except 1988–90, when the oats ARP was lower than for the other feed grains. 9/ There are no target prices, acreage programs, or payment rates for soybeans. 10/ Soybean program data refer to percent of program crop base permitted to shift into beans without loss of base. 11/ Loan repayment rate. 12/ Loans may be repaid at the lower of the loan rate or world market prices. *On September 13, the Secretary announced that participating farmers have the option of planting up to 105 percent of their wheat base to boost 1990 supplies. For every acre planted in excess of 95 percent of base, the acreage used to compute deficiency payments will be cut by 1 acre. --- = not available.

Information contact: James Cole (202) 786–1840.

Table 23.—Fruit

	1981	1982	1983	1984	1985	1986	1987	1988	1989 P
Citrus 1/									
Production (1,000 ton)	15,105	12,139	13,682	10,832	10,525	11,058	11,993	12,761	13,183
Per capita consumpt. (lbs.) 2/	104.4	109.3	120.0	102.8	109.1	117.3	112.8	113.6	—
Noncitrus 3/									
Production (1,000 tons)	13,332	14,658	14,168	14,301	14,191	13,874	16,011	15,884	16,300
Per capita consumpt. (lbs.) 2/	88.0	89.2	88.7	93.9	91.8	96.4	101.5	97.7	—

	1989		1990						
	July	Dec	Jan	Feb	Mar	Apr	May	June	July
F.o.b. shipping point prices									
Apples ($/carton) 4/	9.42	9.00	8.83	11.00	11.00	11.00	11.00	11.28	13.85
Pears ($/box) 5/	—	11.75	12.00	13.85	14.00	14.00	14.00	15.88	—
Grower prices									
Oranges ($/box) 6/	6.52	5.63	4.70	4.93	5.33	6.60	7.03	10.06	5.19
Grapefruit ($/box) 6/	5.57	5.18	4.62	4.68	6.23	8.19	9.06	5.64	12.32
Stocks, ending									
Fresh apples (mil. lbs.)	174.9	3,220.8	2,571.7	2,024.6	1,399.6	1,004.3	589.8	283.9	118.9
Fresh pears (mil. lbs.)	11.0	272.8	200.2	153.0	104.8	63.0	26.9	2.3	33.8
Frozen fruits (mil. lbs.)	722.2	805.2	727.9	661.7	609.0	591.0	583.7	653.2	779.3
Frozen orange juice (mil. lbs.)	1,167.5	749.6	926.6	1,041.5	1,119.2	1,170.0	1,586.2	1,074.8	1,005.4

1/ 1989 indicated 1988/89 season. 2/ Per capita consumption for total U.S. population, including military consumption of both fresh and processed fruit in fresh weight equivalent. 3/ Calendar year. 4/ Red delicious, Washington, extra fancy, carton tray pack, 125's. 5/ D'Anjou, Washington, standard box wrapped, U.S. no. 1, 135's. 6/ U.S. equivalent on-tree returns. p = preliminary. — = not available.

Information contact: Wynnice Napper (202) 786-1885.

Table 24.—Vegetables

	Calendar year								
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Production										
Total vegetables (1,000 cwt)	395,225	392,343	430,795	403,509	456,334	453,030	448,629	478,381	470,222	544,185
Fresh (1,000 cwt) 1/ 3/	179,416	183,456	193,451	185,782	201,817	203,549	203,165	220,539	230,484	240,360
Processed (tons) 2/ 3/	10,790,440	10,444,330	11,867,170	10,886,350	12,725,880	12,474,040	12,273,200	12,892,100	11,986,910	15,191,740
Mushrooms (1,000 lbs.)	469,576	517,146	490,826	561,531	595,661	587,956	614,393	631,819	667,759	715,010
Potatoes (1,000 cwt)	303,905	340,623	356,131	333,726	362,039	406,609	361,743	389,320	356,438	370,494
Sweetpotatoes (1,000 cwt)	10,953	12,799	14,833	12,083	12,902	14,573	12,368	11,611	10,945	11,358
Dry edible beans (1,000 cwt)	26,729	32,751	25,563	15,520	21,070	22,175	22,886	26,031	19,253	24,333

	1989			1990						
	July	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July
Shipments										
Fresh (1,000 cwt) 4/	21,599	21,966	17,467	21,552	17,748	19,880	22,476	35,292	30,291	21,826
Potatoes (1,000 cwt)	9,847	11,282	11,722	13,096	10,738	12,095	12,809	16,062	10,136	8,255
Sweetpotatoes (1,000 cwt)	23	756	476	301	255	251	331	268	167	109

1/ Includes fresh production of asparagus, broccoli, carrots, cauliflower, celery, sweet corn, lettuce, honeydews, onions, & tomatoes. 2/ Includes processing production of snap beans, sweet corn, green peas, tomatoes, cucumbers (for pickles), asparagus, broccoli, carrots, & cauliflower. 3/ Asparagus & cucumber estimates were not available for 1982 & 1983. 4/ Includes snap beans, broccoli, cabbage, carrots, cauliflower, celery, sweet corn, cucumbers, eggplant, lettuce, onions, bell peppers, squash, tomatoes, cantaloupes, honeydews, & watermelons. — = not available.

Information contacts: Gary Lucier or Cathy Greene (202) 786-1884.

Table 25.—Other Commodities

	Annual					1989			1990	
	1985	1986	1987	1988	1989	Apr-June	July-Sept	Oct-Dec	Jan-Mar	Apr-June
Sugar										
Production 1/	5,969	6,257	7,309	7,087	6,827	677	617	3,709	1,671	572
Deliveries 1/	8,035	7,786	8,167	8,188	8,309	2,056	2,161	2,190	1,968	2,048
Stocks, ending 1/	3,126	3,225	3,195	3,132	2,933	2,351	1,224	2,933	3,112	2,165
Coffee										
Composite green price N.Y. (cts./lb.)	137.46	185.18	109.14	115.59	95.17	118.01	72.29	83.70	73.22	78.55
Imports, green bean equiv. (mil. lbs.) 2/	2,550	2,596	2,638	2,072	2,630	535	784	725	866	702

	Annual			1989					1990	
	1987	1988	1989	Feb	Sept	Oct	Nov	Dec	Jan	Feb
Tobacco										
Prices at auctions 3/										
Flue-cured ($/lb.)	1.59	1.61	—	—	1.74	1.70	1.58	—	—	—
Burley ($/lb.)	1.56	1.61	—	1.55	—	—	1.67	1.68	1.68	1.67
Domestic consumption 4/										
Cigarettes (bil.)	575.0	562.5	540.1	41.9	44.4	48.2	50.0	34.4	38.4	41.1
Large cigars (mil.)	2,728	2,531	2,467.6	171.5	216.2	211.4	212.5	187.0	165.5	164.3

1/ 1,000 short tons, raw value. Quarterly data shown at end of each quarter. 2/ Net imports of green & processed coffee. 3/ Crop year July-June for flue-cured, Oct.-Sept. for burley. 4/ Taxable removals. — = not available.

Information contacts: sugar, Peter Buzzanell (202) 786-1888, coffee, Fred Gray (202) 786-1888, tobacco, Verner Grise (202) 786-1890.

World Agriculture

Table 26.—World Supply & Utilization of Major Crops, Livestock, & Products

	1984/85	1985/86	1986/87	1987/88	1988/89 P	1989/90 P	1990/91 F
				Million units			
Wheat							
Area (hectares)	231.2	229.6	228.2	219.9	218.2	226.0	231.3
Production (metric tons)	511.9	500.1	530.7	501.5	500.7	538.1	586.9
Exports (metric tons) 1/	107.0	85.0	90.7	105.0	96.9	96.5	97.2
Consumption (metric tons) 2/	493.0	496.2	522.5	530.5	531.9	538.6	563.6
Ending stocks (metric tons) 3/	164.0	168.3	176.4	147.5	116.3	115.8	139.1
Coarse grains							
Area (hectares)	334.6	341.3	336.5	323.7	325.1	322.4	323.3
Production (metric tons)	815.8	842.7	831.8	793.2	730.5	799.6	821.6
Exports (metric tons) 1/	100.4	83.2	83.3	83.2	94.5	102.1	90.8
Consumption (metric tons) 2/	782.6	778.4	806.0	814.1	797.8	826.2	823.5
Ending stocks (metric tons) 3/	143.9	208.2	234.0	213.1	145.8	119.2	117.3
Rice, milled							
Area (hectares)	144.1	144.6	145.2	141.5	145.4	146.3	146.1
Production (metric tons)	318.8	318.8	318.7	313.8	330.2	341.0	342.2
Exports (metric tons) 4/	11.4	12.6	12.9	11.9	15.1	12.4	13.0
Consumption (metric tons) 2/	310.6	319.5	322.8	319.7	328.1	335.0	341.3
Ending stocks (metric tons) 3/	54.9	54.9	50.9	45.0	47.0	53.0	53.9
Total grains							
Area (hectares)	709.9	715.5	709.9	685.1	688.7	694.7	700.6
Production (metric tons)	1,646.5	1,661.6	1,681.2	1,608.5	1,561.4	1,678.6	1,750.6
Exports (metric tons) 1/	218.8	180.8	186.9	200.1	206.5	211.0	201.0
Consumption (metric tons) 2/	1,586.2	1,594.1	1,651.3	1,664.3	1,657.8	1,699.8	1,728.4
Ending stocks (metric tons) 3/	362.8	431.4	461.3	405.6	309.1	288.0	310.3
Oilseeds							
Crush (metric tons)	150.7	155.1	161.4	167.7	165.6	172.3	178.2
Production (metric tons)	191.1	196.2	194.4	209.5	202.7	211.3	217.3
Exports (metric tons)	33.1	34.5	37.7	39.5	31.9	35.1	35.0
Ending stocks (metric tons)	21.1	28.8	23.3	24.0	22.2	21.9	19.6
Meals							
Production (metric tons)	101.8	105.0	110.6	115.1	111.7	117.2	120.6
Exports (metric tons)	32.3	34.4	36.7	36.3	38.3	38.5	39.4
Oils							
Production (metric tons)	46.2	49.4	50.3	53.1	53.6	56.6	58.8
Exports (metric tons)	15.6	16.4	16.9	17.7	18.4	19.2	19.2
Cotton							
Area (hectares)	33.9	31.9	29.9	31.1	34.0	32.6	33.8
Production (bales)	88.2	80.6	70.9	81.4	84.8	79.9	86.9
Exports (bales)	20.2	20.3	26.0	23.3	26.0	24.4	24.3
Consumption (bales)	70.0	77.3	82.8	84.5	85.6	86.6	86.7
Ending stocks (bales)	42.4	47.0	34.6	31.5	30.2	23.8	23.3
	1984	1985	1986	1987	1988	1989 P	1990 F
Red meat							
Production (metric tons)	99.8	103.7	106.7	109.7	113.3	114.6	113.9
Consumption (metric tons)	97.8	101.6	105.4	107.9	111.5	113.0	112.2
Exports (metric tons) 1/	6.0	6.4	6.7	6.7	6.9	6.9	7.1
Poultry							
Production (metric tons)	25.2	26.2	27.4	29.3	30.2	31.3	32.7
Consumption (metric tons)	25.0	25.8	27.0	28.7	29.8	30.9	32.1
Exports (metric tons) 1/	1.3	1.2	1.3	1.5	1.7	1.7	1.8
Dairy							
Milk production (metric tons)	413.0	413.4	419.0	427.1	429.8	431.3	437.3

1/ Excludes intra-EC trade. 2/ Where stocks data not available (excluding USSR), consumption includes stock changes. 3/ Stocks data are based on differing marketing years & do not represent levels at a given date. Data not available for all countries; includes estimated change in USSR grain stocks but not absolute level. 4/ Calendar year data. 1985 data correspond with 1984/85, etc. P = preliminary. F = forecast.

Information contacts: Crops, Frederic Surls (202) 786-1824; red meat & poultry, Linda Bailey (202) 786-1286; dairy, Sara Short (202) 786-1769.

U.S. Agricultural Trade

Table 27.—Prices of Principal U.S. Agricultural Trade Products

	Annual			1989	1990				
	1987	1988	1989	July	Feb	Mar	Apr	May	June	July
Export commodities										
Wheat, f.o.b. vessel, Gulf ports ($/bu.)	3.11	3.97	4.65	4.57	4.41	4.28	4.40	4.10	3.69	3.41
Corn, f.o.b. vessel, Gulf ports ($/bu.)	1.95	2.73	2.85	2.74	2.71	2.60	3.02	3.09	3.06	2.93
Grain sorghum, f.o.b. vessel, Gulf ports ($/bu.)	1.88	2.52	2.70	2.60	2.59	2.64	2.79	2.84	2.79	2.79
Soybeans, f.o.b. vessel, Gulf ports ($/bu.)	5.55	7.81	7.06	7.26	6.05	6.16	6.24	6.40	6.23	6.32
Soybean oil, Decatur (cts./lb.)	15.85	23.52	20.21	19.87	20.54	22.92	23.20	24.49	24.96	24.76
Soybean meal, Decatur ($/ton)	175.57	234.75	216.59	230.23	161.80	164.34	168.85	176.98	169.50	171.09
Cotton, 8-market avg. spot (cts./lb.)	64.35	57.25	63.76	67.39	65.03	68.06	71.31	74.61	77.06	76.27
Tobacco, avg. price at auction (cts./lb.)	144.32	153.61	151.56	160.08	160.54	160.54	164.68	164.68	164.68	161.00
Rice, f.o.b. mill, Houston ($/cwt)	13.15	19.60	15.68	16.50	15.69	16.25	16.25	16.25	16.25	16.25
Inedible tallow, Chicago (cts./lb.)	13.79	16.64	14.71	14.48	14.50	14.47	13.77	13.66	14.00	10.06
Import commodities										
Coffee, N.Y. spot ($/lb.)	1.09	1.21	1.04	0.88	0.78	0.85	0.84	0.84	0.78	0.75
Rubber, N.Y. spot (cts./lb.)	50.65	59.20	50.65	49.16	45.75	45.91	45.64	45.80	46.00	45.80
Cocoa beans, N.Y. ($/lb.)	0.87	0.69	0.55	0.58	0.45	0.50	0.59	0.63	0.57	0.58

Information contact: Mary Teymourian (202) 786-1824

Table 28.—Indexes of Real Trade-Weighted Dollar Exchange Rates[1]

	1989		1990							
	Aug	Dec	Jan P	Feb P	Mar P	Apr P	May P	June P	July P	Aug P
						1985 = 100				
Total U.S. trade 2/	72.8	69.4	67.8	67.2	68.6	67.9	66.8	67.3	65.5	65.1
Agricultural trade										
U.S. markets	80.6	78.5	78.1	77.9	79.0	79.2	78.3	78.7	77.4	77.3
U.S. competitors 3/	85.7	84.0	80.1	80.3	79.5	79.7	79.6	79.8	78.9	78.8
Wheat										
U.S. markets	91.7	89.4	88.6	88.3	88.3	89.2	89.0	89.6	88.7	88.8
U.S. competitors 3/	84.3	84.6	79.6	80.6	80.6	79.6	79.7	79.7	78.5	78.3
Soybeans										
U.S. markets	72.5	70.0	69.3	69.0	70.6	70.5	69.4	69.9	68.5	68.3
U.S. competitors 3/	97.0	105.9	82.0	81.8	77.7	80.3	80.3	80.3	80.5	80.6
Corn										
U.S. markets	73.6	72.6	72.7	72.5	74.3	74.8	73.6	73.0	72.5	72.5
U.S. competitors 3/	94.7	101.2	85.1	85.0	85.8	85.3	85.0	85.6	84.9	84.8
Cotton										
U.S. markets	76.1	75.7	76.0	76.1	77.7	78.1	77.1	77.4	76.5	76.6
U.S. competitors	85.5	79.0	77.8	77.5	76.7	76.0	75.0	74.2	72.8	72.0

1/ Real indexes adjust nominal exchange rates for differences in rates of inflation, to avoid the distortion caused by high-inflation countries. A higher value means the dollar has appreciated. See the October 1988 issue of Agricultural Outlook for a discussion of the calculations and the weights used. 2/ Federal Reserve Board index of trade-weighted value of the U.S. dollar against 10 major currencies. Weights are based on relative importance in world financial markets. 3/ Substantial devaluations of the Argentine australe & Brazilian cruzado resulted in a sharp increase in the December, 1989, & subsequent values of these indices. P = preliminary.

Information contact: Tim Baxter, David Stallings (202) 786-1706.

Table 29.—Trade Balance

	Fiscal year 1/								June
	1983	1984	1985	1986	1987	1988	1989	1990 F	1990
					$ million				
Exports									
Agricultural	34,769	38,027	31,201	26,312	27,876	35,379	39,651	40,000	3,234
Nonagricultural	159,373	170,014	179,236	179,291	202,911	258,593	302,507	—	29,264
Total 2/	194,142	208,041	210,437	205,603	230,787	293,972	342,158	—	32,498
Imports									
Agricultural	16,373	18,916	19,740	20,884	20,650	21,014	21,479	22,000	1,812
Nonagricultural	230,527	297,736	313,722	342,846	367,374	409,138	441,072	—	38,195
Total 3/	246,900	316,652	333,462	363,730	388,024	430,152	462,551	—	40,007
Trade balance									
Agricultural	18,396	19,111	11,461	5,428	7,226	14,365	18,172	18,000	1,422
Nonagricultural	-71,154	-127,722	-134,486	-163,555	-164,463	-150,545	-138,565	—	-8,931
Total	-52,758	-108,611	-123,025	-158,127	-157,237	-136,180	-120,393	—	-7,509

1/ Fiscal years begin October 1 & end September 30. Fiscal year 1989 began Oct. 1, 1988 & ended Sept. 30, 1989. 2/ Domestic exports including Department of Defense shipments (F.A.S. value). 3/ Imports for consumption (customs value) F = forecast. — = not available.

Information contact: Stephen MacDonald (202) 786-1822.

Table 30.—U.S. Agricultural Exports & Imports

	Fiscal year*			June	Fiscal year*			June
	1988	1989	1990 F	1990	1988	1989	1990 F	1990
			1,000 units				$ million	
EXPORTS								
Animals, live (no.) 1/	430	758	—	49	452	475	—	18
Meats & preps., excl. poultry (mt)	631	869	0	66	1,797	2,355	—	199
Dairy products (mt)	388	594	—	10	536	475	400	30
Poultry meats (mt)	390	466	600	55	424	514	—	62
Fats, oils, & greases (mt)	1,362	1,377	3/1,300	92	545	531	—	34
Hides & skins incl. furskins	—	—	—	2,252	1,837	1,713	—	148
Cattle hides, whole (no.) 1/	20,817	26,260	—	1,947	1,458	1,360	—	114
Mink pelts (no.) 1/	2,455	3,073	—	305	88	91	—	6
Grains & feeds (mt)	108,944	114,976	—	9,181	12,569	16,837	4/16,000	1,284
Wheat (mt)	40,517	37,702	28,500	2,402	4,469	6,008	5/4,600	340
Wheat flour (mt)	1,236	1,268	1,000	22	170	266	—	5
Rice (mt)	2,173	3,052	2,400	142	731	955	800	52
Feed grains, incl. products (mt)	53,117	61,094	69,200	5,716	5,193	7,379	8,000	711
Feeds & fodders (mt)	11,255	11,071	6/11,000	626	1,720	1,848	—	130
Other grain products (mt)	910	1,197	—	120	362	513	—	57
Fruits, nuts, and preps. (mt)	2,409	2,555	—	260	2,368	2,394	—	279
Fruit juices incl. froz. (1,000 hectoliters) 1/	5,497	4,997	—	574	252	264	—	32
Vegetables & preps. (mt)	1,821	2,482	—	242	1,280	1,548	—	201
Tobacco, unmanufactured (mt)	229	212	200	13	1,297	1,274	1,400	89
Cotton, excl. linters (mt)	1,388	1,441	1,800	117	2,136	2,039	2,900	192
Seeds (mt)	286	514	—	12	415	500	600	17
Sugar, cane or beet (mt)	318	368	—	49	98	134	—	22
Oilseeds & products (mt)	29,688	21,090	—	1,540	7,758	6,624	6,100	430
Oilseeds (mt)	21,601	14,775	—	982	5,295	4,400	—	250
Soybeans (mt)	21,142	14,088	16,900	954	5,066	4,079	3,800	227
Protein meal (mt)	6,389	4,816	4,400	419	1,501	1,317	1,000	90
Vegetable oils (mt)	1,699	1,498	—	139	962	906	—	90
Essential oils (mt)	9	13	—	1	120	171	—	16
Other	610	612	—	—	1,495	1,805	—	185
Total	148,473	147,569	148,500	11,643	35,379	39,651	40,000	3,234
IMPORTS								
Animals, live (no.) 1/	2,238	2,484	—	217	729	740	800	90
Meats & preps., excl. poultry (mt)	1,280	1,092	—	108	2,788	2,433	—	260
Beef & veal (mt)	779	688	725	68	1,681	1,527	1,800	164
Pork (mt)	456	371	345	33	1,001	776	800	87
Dairy products (mt)	232	211	—	26	881	834	900	90
Poultry & products 1/	—	—	—	1	97	130	—	10
Fats, oils, & greases (mt)	20	14	—	2	19	14	—	1
Hides & skins, incl. furskins 1/	—	—	—	—	247	240	—	6
Wool, unmanufactured (mt)	56	62	—	3	292	319	—	12
Grains & feeds (mt)	3,075	3,468	3,550	294	868	1,139	1,200	93
Fruits, nuts, & preps., excl. juices (mt)	4,797	5,036	5,150	403	2,169	2,269	—	189
Bananas & plantains (mt)	3,030	3,039	3,200	265	820	851	900	74
Fruit juices (1,000 hectoliters) 1/	26,758	27,778	30,300	2,901	768	793	—	95
Vegetables & preps. (mt)	2,516	2,953	—	87	1,593	1,959	2,300	132
Tobacco, unmanufactured (mt)	217	169	180	13	611	521	500	40
Cotton, unmanufactured (mt)	36	13	—	3	9	8	—	2
Seeds (mt)	143	158	170	4	153	187	200	11
Nursery stock & cut flowers 1/	—	—	—	—	419	466	—	30
Sugar, cane or beet (mt)	1,076	1,630	—	130	372	620	—	54
Oilseeds & products (mt)	1,772	1,917	1,950	180	838	946	900	83
Oilseeds (mt)	206	424	—	49	71	159	—	19
Protein meal (mt)	253	359	—	26	42	65	—	4
Vegetable oils (mt)	1,311	1,133	—	103	725	721	—	60
Beverages excl. fruit juices (1,000 hectoliters) 1/	15,583	13,967	—	1,288	2,008	1,815	—	165
Coffee, tea, cocoa, spices	1,841	1,868	—	174	4,274	3,896	—	283
Coffee, incl. products (mt)	1,050	1,084	1,250	96	2,600	2,467	2,300	158
Cocoa beans & products (mt)	562	564	565	60	1,164	969	900	87
Rubber & allied gums (mt)	846	927	850	78	949	1,051	600	64
Other	—	—	—	—	931	1,097	—	96
Total	—	—	—	—	21,014	21,479	22,500	1,612

*Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1989 began Oct. 1, 1988 & ended Sept. 30, 1989. 1/ Not included in total volume. 2/ Forecasts for footnoted items 2/–6/ are based on slightly different groups of commodities. Fiscal 1988 exports of categories used in the 1989 forecasts were 2/ 561,000 m. tons. 3/ 1,347 million dollars 4/ 12,743 million. 5/ 4,638 million, i.e. includes flour. 6/ 11,095 million m. tons. F = forecast — = not available.

Information contact: Stephen MacDonald (202) 786–1822.

Table 31.—U.S. Agricultural Exports by Region

Region & country	Fiscal year*			June	Change from year* earlier			June
	1988	1989	1990 F	1990	1988	1989	1990 F	1990
	$ million				Percent			
WESTERN EUROPE	8,053	7,067	7,000	416	12	-12	-1	14
European Community (EC-12)	7,536	6,558	6,500	379	11	-13	-1	11
Belgium-Luxembourg	429	431	—	22	1	1	—	1
France	563	474	—	30	14	-16	—	10
Germany, Fed. Rep.	1,315	918	—	64	4	-30	—	26
Italy	713	603	—	38	-3	-16	—	-5
Netherlands	2,103	1,847	—	91	8	-12	—	25
United Kingdom	818	736	—	55	23	-10	—	22
Portugal	340	307	—	23	25	-10	—	-14
Spain, incl. Canary Islands	848	876	—	30	29	3	—	-18
Other Western Europe	516	510	500	37	20	-1	0	63
Switzerland	191	166	—	18	32	-13	—	111
EASTERN EUROPE	559	422	500	21	23	-24	25	-37
German Dem. Rep.	67	72	—	0	0	8	—	-98
Poland	167	45	—	1	165	-73	—	-89
Yugoslavia	104	76	—	2	-21	-26	—	142
Romania	93	62	—	17	-19	-33	—	330
USSR	1,940	3,299	3,100	391	194	70	-6	10
ASIA	15,944	18,685	18,400	1,480	33	17	-2	-4
West Asia (Mideast)	1,904	2,270	2,200	146	14	19	0	-8
Turkey	120	238	—	12	3	97	—	-31
Iraq	735	791	600	22	39	8	-25	-58
Israel	334	265	—	28	37	-21	—	-4
Saudi Arabia	464	482	500	47	-5	4	0	55
South Asia	805	1,171	—	70	133	45	—	16
Bangladesh	107	213	—	21	-3	98	—	-24
India	354	243	—	9	281	-31	—	-58
Pakistan	276	609	500	39	181	121	-17	1,748
China	613	1,494	800	65	161	144	-47	-1
Japan	7,274	8,152	8,300	598	31	12	1	-11
Southeast Asia	1,022	974	—	91	44	-5	—	53
Indonesia	245	216	—	27	61	-12	—	120
Philippines	345	344	400	26	33	0	33	21
Other East Asia	4,326	4,623	5,100	450	24	7	11	-5
Taiwan	1,577	1,594	1,800	160	16	1	13	4
Korea, Rep.	2,259	2,453	2,700	231	33	9	8	-16
Hong Kong	488	575	700	59	12	18	17	41
AFRICA	2,272	2,281	2,100	126	27	0	4	-22
North Africa	1,659	1,798	1,700	78	30	8	-5	-35
Morocco	193	216	—	6	-2	12	—	-56
Algeria	537	549	600	34	120	2	20	-19
Egypt	786	955	700	31	3	21	-30	-44
Sub-Sahara	613	483	400	48	21	-21	-20	17
Nigeria	44	30	—	1	-35	-31	—	7
Rep. S. Africa	85	57	—	8	74	-34	—	123
LATIN AMERICA & CARIBBEAN	4,401	5,442	5,200	441	17	24	-4	13
Brazil	176	152	100	13	-58	-13	-33	-28
Caribbean Islands	867	1,007	—	78	5	16	—	-16
Central America	414	448	—	32	10	8	—	42
Colombia	178	139	—	19	55	-22	—	52
Mexico	1,726	2,757	2,700	224	42	60	-4	17
Peru	174	81	—	5	24	-54	—	-44
Venezuela	597	587	200	45	30	-2	-66	56
CANADA	1,973	2,187	3,400	389	11	11	55	63
OCEANIA	237	268	300	30	3	13	0	63
Total	35,379	39,651	40,000	3,234	27	12	1	6
Developed countries	17,905	18,000	18,800	1,463	19	1	4	11
Less developed countries	14,362	16,436	16,500	1,294	25	14	1	2
Centrally planned countries	3,111	5,215	4,700	477	131	68	-10	5

*Fiscal years begin Oct. 1 & end Sept. 30. Fiscal year 1989 began Oct. 1, 1988 & ended Sept. 30, 1989. F = forecast. — = not available.
Note: Adjusted for transshipments through Canada.

Information contact: Stephen MacDonald (202) 786-1822.

Farm Income

Table 32.—Farm Income Statistics

	Calendar year										
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 F	1990 F
	$ billion										
1. Farm receipts	142.0	144.1	147.1	141.1	146.8	144.1	135.2	141.7	150.2	159	168 to 172
Crops (incl. net CCC loans)	71.7	72.5	72.3	67.2	69.9	74.3	63.7	65.6	71.4	75	79 to 82
Livestock	68.0	69.2	70.3	69.6	72.9	69.8	71.5	76.0	78.8	84	88 to 91
Farm related 1/	2.3	2.5	4.6	4.5	4.3	5.3	5.9	5.9	5.7	7	6 to 7
2. Direct Government payments	1.3	1.9	3.5	9.3	8.4	7.7	11.8	16.7	14.5	11	9 to 10
Cash payments	1.3	1.9	3.5	4.1	4.0	7.6	8.1	6.6	7.1	9	6 to 9
Value of PIK commodities	0.0	0.0	0.0	5.2	4.5	0.1	3.7	10.1	7.4	2	0 to 1
3. Total gross farm income (4+5+6) 2/	149.3	166.3	163.5	153.2	170.2	162.9	156.5	169.0	173.8	189	192 to 199
4. Gross cash income (1+2)	143.3	146.0	150.6	150.6	155.5	157.2	152.9	164.3	170.4	177	183 to 189
5. Nonmoney income 3/	12.3	13.8	14.3	13.5	18.7	8.0	6.9	7.5	7.5	7	7 to 8
6. Value of inventory change	−6.3	6.5	−1.4	−10.9	6.0	−2.3	−2.4	−2.8	−4.1	4	0 to 4
7. Cash expenses 4/	109.1	113.2	112.8	111.4	118.8	109.0	104.8	108.2	112.0	123	124 to 127
8. Total expenses	133.1	139.4	139.9	138.2	143.7	131.7	125.1	127.7	131.8	143	144 to 148
9. Net cash income (4−7)	34.2	32.8	37.9	39.2	36.8	48.2	47.2	56.1	58.4	55	59 to 63
10. Net farm income (3−8)	16.1	26.9	23.6	14.9	26.5	31.2	31.4	41.2	42.0	47	47 to 52
Deflated (1982$)	18.8	28.6	23.6	14.3	24.6	28.1	27.6	35.1	34.6	37	35 to 40
11. Off-farm income	34.7	35.8	36.4	37.0	39.2	55.2	54.5	56.9	57.7	58	58 to 62
12. Loan changes 5/: Real estate	9.9	9.0	3.8	2.3	−1.1	−6.2	−7.8	−6.7	−4.5	−3	−2 to 0
13. 5/: Non-real estate	5.3	6.5	3.4	0.9	−0.8	−9.6	−11.0	−4.6	−0.3	0	0 to 1
14. Rental income plus monetary change	6.1	6.4	6.3	5.3	8.9	8.8	8.1	6.8	7.6	8	8 to 10
15. Capital expenditures 5/	18.0	16.8	13.3	12.7	12.5	9.2	8.5	11.1	11.1	13	12 to 15
16. Net cash flow (9+12+13+14−15)	37.6	37.8	38.1	32.7	31.3	31.9	28.1	40.6	50.3	47	52 to 59

1/ Income from machine hire, custom work, sales of forest products, & other miscellaneous cash sources. 2/ Numbers in parentheses indicate the combination of items required to calculate a given item. 3/ Value of home consumption of self-produced food & imputed gross rental value of farm dwellings. 4/ Excludes capital consumption, perquisities to hired labor, & farm household expenses. 1987 & 1988 expenses include preliminary revisions from the 1987 Census of Agriculture. 5/ Excludes farm households. Totals may not add because of rounding. F = forecast.

Information contact: Diane Bertelsen (202) 786-1808.

Table 33.—Balance Sheet of the U.S. Farming Sector

	Calendar year 1/										
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 F	1990 F
	$ billion										
Assets											
Real estate	782.4	784.7	748.8	758.2	610.3	540.8	507.3	525.4	555.4	578	590 to 600
Non-real estate	201.8	197.8	198.0	191.9	197.8	186.2	180.8	190.5	204.6	213	215 to 225
Livestock & poultry	60.6	53.5	53.0	49.5	49.5	46.3	47.6	58.0	65.5	70	70 to 74
Machinery & motor vehicles	81.5	87.0	87.5	87.4	86.0	83.8	81.9	79.4	80.6	84	84 to 88
Crops stored 2/	33.0	29.1	27.7	23.9	29.7	22.9	16.7	18.0	23.0	24	22 to 26
Financial assets	26.7	28.2	29.8	30.9	32.6	33.3	34.5	35.1	35.5	37	35 to 39
Total farm assets	984.2	982.5	946.8	949.9	808.1	727.0	688.1	715.9	760.0	791	810 to 820
Liabilities											
Real estate debt 3/	89.6	98.7	102.5	104.6	94.9	88.6	80.8	74.1	69.7	67	64 to 68
Non-real estate debt 4/	77.1	83.6	87.0	87.9	87.1	77.5	66.6	62.0	61.7	62	60 to 64
Total farm debt	166.8	182.3	189.5	192.7	182.0	166.1	147.4	136.2	131.4	129	125 to 131
Total farm equity	817.4	800.2	757.3	757.2	626.1	560.9	540.7	579.7	628.6	662	685 to 695
	Percent										
Selected ratios											
Debt-to-assets	16.9	18.6	20.0	20.3	22.5	22.8	21.4	19.0	17.3	16	15 to 16
Debt-to-equity	20.4	22.8	25.0	25.4	29.1	29.6	27.3	23.5	20.9	20	18 to 19
Debt-to-net cash income	502	564	500	492	495	345	311	243	225	237	200 to 210

1/ As of Dec. 31. 2/ Non-CCC crops held on farms plus value above loan rates for crops held under CCC. 3/ Excludes debt on operator dwellings, but includes CCC storage and drying facilities loans. 4/ Excludes debt for nonfarm purposes. F = forecast.

Information contacts: Ken Erickson or Jim Ryan (202) 786-1798.

Table 34.—Cash Receipts From Farm Marketings, by State

Region & State	Livestock & products				Crops 1/				Total 1/			
	1988	1989	May 1990	June 1990	1988	1989	May 1990	June 1990	1988	1989	May 1990	June 1990
	$ million 2/											
NORTH ATLANTIC												
Maine	217	215	16	16	197	233	16	2	414	447	33	18
New Hampshire	59	63	6	5	77	79	5	3	136	142	11	9
Vermont	351	375	34	33	51	51	6	2	401	426	39	35
Massachusetts	105	112	10	10	305	317	17	18	410	429	27	28
Rhode Island	13	13	1	1	66	66	4	2	79	79	6	3
Connecticut	183	186	15	14	214	218	17	12	398	404	32	26
New York	1,803	1,946	169	174	865	911	58	69	2,668	2,857	227	243
New Jersey	193	197	17	16	452	463	37	48	645	660	55	65
Pennsylvania	2,332	2,595	235	231	964	986	70	62	3,296	3,581	306	293
NORTH CENTRAL												
Ohio	1,584	1,698	173	150	1,980	2,114	106	101	3,564	3,812	279	251
Indiana	1,716	1,817	181	166	2,320	2,502	174	219	4,036	4,318	356	385
Illinois	2,255	2,252	225	205	3,927	4,458	401	508	6,182	6,710	626	713
Michigan	1,205	1,313	125	125	1,535	1,627	102	109	2,739	2,940	227	234
Wisconsin	4,215	4,337	425	404	764	941	44	68	4,980	5,278	469	472
Minnesota	3,418	3,716	369	331	2,649	2,809	179	257	6,067	6,526	548	589
Iowa	4,988	5,209	482	430	3,787	3,911	281	329	8,775	9,119	760	759
Missouri	2,012	2,168	204	180	1,746	1,732	84	203	3,758	3,900	287	384
North Dakota	951	642	35	32	1,507	1,465	103	136	2,358	2,108	139	168
South Dakota	2,050	2,108	145	157	895	884	67	66	2,945	2,992	212	224
Nebraska	5,390	5,843	547	449	2,409	2,678	214	176	7,800	8,521	761	624
Kansas	4,124	4,245	432	299	2,195	2,079	93	207	6,320	6,324	525	506
SOUTHERN												
Delaware	444	503	40	39	152	160	8	12	595	663	48	51
Maryland	768	870	67	68	457	476	30	29	1,224	1,346	97	97
Virginia	1,300	1,372	101	104	614	685	23	39	1,914	2,058	125	143
West Virginia	218	250	19	19	68	64	2	5	286	314	21	24
North Carolina	2,188	2,505	213	207	1,850	2,046	71	98	4,038	4,551	284	305
South Carolina	490	551	45	40	616	675	26	78	1,106	1,225	71	119
Georgia	2,016	2,270	189	184	1,554	1,598	68	108	3,570	3,868	257	293
Florida	1,132	1,221	102	99	4,688	4,982	310	191	5,820	6,203	412	290
Kentucky	1,530	1,670	95	103	980	1,258	34	63	2,510	2,928	129	166
Tennessee	1,056	1,060	90	83	877	861	35	58	1,933	1,921	125	141
Alabama	1,695	1,932	186	166	726	696	37	53	2,422	2,628	223	219
Mississippi	1,172	1,292	111	109	1,133	1,000	34	55	2,305	2,292	145	164
Arkansas	2,280	2,661	227	232	1,552	1,470	36	160	3,831	4,131	262	391
Louisiana	582	614	52	58	1,295	1,048	44	36	1,876	1,661	96	94
Oklahoma	2,243	2,409	199	203	1,112	1,185	69	186	3,354	3,594	268	392
Texas	6,562	6,863	629	634	3,669	3,897	260	225	10,251	10,760	888	859
WESTERN												
Montana	816	699	51	37	617	710	49	43	1,433	1,610	100	80
Idaho	1,039	1,046	88	80	1,285	1,670	112	99	2,324	2,715	200	178
Wyoming	584	669	41	28	177	186	4	4	761	856	44	31
Colorado	2,666	2,649	227	233	1,034	1,250	78	77	3,700	3,899	305	310
New Mexico	909	974	73	61	375	450	25	45	1,283	1,424	97	106
Arizona	792	744	67	54	1,177	1,158	103	48	1,969	1,902	170	102
Utah	528	574	45	51	173	174	7	11	701	748	52	62
Nevada	159	141	13	11	79	94	4	5	238	235	17	16
Washington	1,140	1,201	107	108	2,196	2,438	139	167	3,336	3,639	247	275
Oregon	673	739	53	64	1,508	1,558	59	89	2,182	2,297	112	152
California	4,682	5,093	449	532	11,970	12,422	914	912	16,652	17,515	1,363	1,444
Alaska	10	9	1	1	20	20	1	1	30	29	2	2
Hawaii	89	92	6	8	490	495	40	40	579	587	48	47
UNITED STATES	78,821	83,724	7,432	7,045	71,372	75,449	4,700	5,536	150,192	159,173	12,131	12,581

1/ Sales of farm products include receipts from commodities placed under CCC loans minus value of redemptions during the period. 2/ Estimates as of end of current month. Totals may not add because of rounding.

Information contact: Roger Strickland (202) 786–1804.

Table 35.—Cash Receipts From Farming

	Annual						1989	1990				
	1984	1985	1986	1987	1988	1989	Jun	Feb	Mar	Apr	May	Jun
							$ million					
Farm marketings & CCC loans*	142,784	144,114	135,197	141,653	150,192	159,173	12,040	10,598	12,264	11,567	12,131	12,581
Livestock & products	72,895	69,822	71,539	76,010	78,821	83,724	6,446	6,614	7,380	6,963	7,432	7,045
Meat animals	40,750	38,550	39,081	44,478	45,884	48,591	3,332	3,748	4,172	3,926	4,235	3,854
Dairy products	17,931	18,055	17,724	17,727	17,641	19,401	1,525	1,585	1,716	1,665	1,782	1,756
Poultry & eggs	12,245	11,209	12,701	11,517	12,867	15,346	1,410	1,139	1,333	1,215	1,254	1,265
Other	1,968	2,008	2,034	2,286	2,429	2,386	179	142	159	157	161	170
Crops	69,889	74,293	63,658	65,643	71,372	75,449	5,595	3,983	4,883	4,604	4,700	5,536
Food grains	9,731	8,990	5,741	5,780	7,464	8,073	1,490	339	382	298	390	1,286
Feed crops	16,138	22,591	16,912	14,543	14,305	16,656	1,183	1,101	1,360	1,218	1,359	1,501
Cotton (lint & seed)	3,674	3,687	3,371	4,189	4,546	4,740	71	311	259	166	192	115
Tobacco	2,813	2,699	1,921	1,826	1,960	2,381	0	53	1	18	0	0
Oil-bearing crops	13,641	12,475	10,614	11,294	13,537	12,172	596	456	757	538	505	616
Vegetables & melons	9,152	8,572	8,849	9,889	9,754	11,340	952	610	819	942	1,093	876
Fruits & tree nuts	6,734	6,946	7,248	8,058	9,139	9,020	711	410	343	210	237	530
Other	8,008	8,333	9,002	10,064	10,665	11,068	611	702	962	1,215	923	611
Government payments	6,430	7,704	11,813	16,747	14,480	10,887	559	1,045	2,331	1,215	636	151
Total	151,214	151,818	147,010	158,400	164,672	170,060	12,599	11,643	14,595	12,782	12,767	12,732

*Receipts from loans represent value of commodities placed under CCC loans minus value of redemptions during the month.

Information contact: Roger Strickland (202) 786-1804.

Table 36.—Farm Production Expenses

	Calendar year										
	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989 F	1990 F
						$ million					
Feed	20,971	20,855	18,592	20,371	20,239	17,247	17,875	17,958	20,620	22,722	21,000 to 24,000
Livestock	10,670	8,999	9,684	8,817	9,486	9,184	9,758	11,842	12,812	12,983	12,000 to 15,000
Seed	3,220	3,428	3,172	2,690	3,386	3,128	3,188	3,259	3,268	3,733	3,000 to 5,000
Farm-origin inputs	34,861	33,282	31,447	31,879	33,111	29,559	30,821	33,059	36,700	39,438	36,000 to 42,000
Fertilizer	9,410	9,409	8,018	6,959	8,575	7,506	6,526	6,084	6,378	7,119	6,000 to 8,000
Fuels & oils	7,879	8,570	7,735	7,211	7,296	6,436	5,310	4,957	4,921	5,321	5,000 to 7,000
Electricity	1,526	1,747	2,041	1,982	2,060	1,878	1,795	2,156	2,231	2,100	2,000 to 3,000
Pesticides	3,539	4,201	4,282	3,870	4,688	4,334	4,324	4,512	4,443	5,721	5,000 to 7,000
Manufactured inputs	22,434	23,927	22,077	20,022	22,618	20,153	18,242	18,077	18,370	20,697	20,000 to 23,000
Short-term interest	8,717	10,722	11,349	10,615	10,396	8,735	7,920	7,305	7,287	7,480	7,000 to 8,000
Real estate interest 1/	7,544	9,142	10,481	10,815	10,733	9,878	9,131	8,187	7,885	7,643	6,000 to 8,000
Total interest charges	16,261	19,864	21,830	21,430	21,129	18,613	17,052	15,492	15,172	15,123	14,000 to 15,000
Repair & maintenance 1/ 2/	7,075	7,021	6,428	6,529	6,730	6,556	6,485	6,828	6,889	7,794	7,000 to 9,000
Contract & hired labor	9,294	8,932	10,075	9,726	9,729	9,799	9,890	10,821	11,202	11,887	11,000 to 13,000
Machine hire & custom work	1,823	1,984	2,025	2,213	2,566	2,354	2,099	2,105	2,271	2,739	2,000 to 4,000
Marketing, storage, & transportation	3,070	3,523	4,301	3,904	4,012	4,127	3,652	3,988	3,281	4,214	4,000 to 6,000
Misc. operating expenses 1/	6,881	6,909	7,262	9,089	9,136	8,198	8,054	8,902	9,357	9,857	8,000 to 9,000
Other operating expenses	28,143	28,369	30,089	31,461	32,173	31,034	30,180	32,644	33,000	36,491	36,000 to 40,000
Capital consumption 1/	21,474	23,573	24,287	23,873	21,623	19,648	17,709	16,475	16,716	17,310	17,000 to 19,000
Taxes 1/	3,891	4,246	4,036	4,469	4,059	4,231	4,125	4,995	4,803	5,316	5,000 to 6,000
Net rent to nonoperator landlord	6,075	6,184	6,174	5,110	5,978	5,435	5,951	6,964	7,014	8,161	8,000 to 10,000
Other overhead expenses	31,440	34,003	34,497	33,452	34,660	32,314	28,785	28,434	28,533	30,807	31,000 to 34,000
Total production expenses	133,138	139,444	139,940	38,243	143,691	131,673	125,079	127,706	131,777	142,555	144,000 to 148,000

1/ Includes operator dwellings. 2/ Beginning in 1982, miscellaneous operating expenses include other livestock purchases & dairy assessments. Totals may not add because of rounding. F = forecast. 1987 & 1988 expenses include preliminary revisions from the Census of Agriculture.

Information contacts: Chris McGath (202) 786-1804, Diane Bertelsen (202) 786-1808.

Table 37.—CCC Net Outlays by Commodity & Function

	Fiscal year									
	1982	1983	1984	1985	1986	1987	1988	1989	1990 E	1991 E
	$ million									
COMMODITY/PROGRAM										
Feed grains										
Corn	4.281	5,720	–934	4,403	10.524	12.346	8,227	2,863	2,638	1,665
Grain sorghum	988	814	76	463	1,185	1.203	764	467	433	222
Barley	129	268	89	336	471	394	57	45	–88	37
Oats	–1	11	5	2	26	17	–2	1	–7	0
Corn & oat products	0	2	6	7	5	7	7	8	8	9
Total feed grains	5,397	6.815	–758	5,211	12.211	13.967	9,053	3,384	2.984	1,933
Wheat	2,238	3.419	2,536	4,691	3,440	2.836	878	53	576	1,951
Rice	164	664	333	990	947	906	128	631	701	669
Upland cotton	1,190	1.363	244	1,553	2,142	1,786	666	1,461	–109	434
Tobacco	103	880	346	455	253	–346	–453	–367	–242	–223
Dairy	2,182	2,528	1.502	2,085	2.337	1.166	1,295	679	423	446
Soybeans	169	288	–585	711	1,597	–476	–1,676	–86	116	50
Peanuts	12	–6	1	12	32	8	7	13	–6	3
Sugar	–5	49	10	184	214	–65	–246	–25	0	0
Honey	27	48	90	81	89	73	100	42	63	50
Wool	54	94	132	109	123	152	1/ 5	93	112	167
Operating expense 3/	294	328	362	346	457	535	614	620	627	634
Interest expenditure	–13	3,525	1,064	1,435	1,411	1,219	395	65	653	527
Export programs 4/	65	398	743	134	102	276	200	–102	–39	67
1989/89 Disaster/ Livestock Assistance	0	0	0	0	0	0	0	3,919	2/ 196	76
Other	–225	–1,542	1,295	–314	486	371	1,695	143	687	867
Total	11,652	18,851	7,315	17.683	25,841	22,408	12.461	10.523	6,742	7.651
FUNCTION										
Price–support loans (net)	7,015	8,438	–27	6.272	13,628	12.199	4,579	–926	–276	197
Direct payments										
Deficiency	1,185	2,780	612	6,302	6.166	4.833	3,971	5,798	4,158	4.584
Diversion	0	705	1,504	1,525	64	382	8	–1	0	0
Dairy termination	0	0	0	0	489	587	260	168	178	100
Other	0	0	0	0	27	60	0	42	1	11
Disaster	306	115	1	0	0	0	6	4	0	0
Total direct payments	1,491	3,600	2.117	7,827	6.746	5,862	4,245	6,011	4,337	4.695
1988/89 crop disaster	0	0	0	0	0	0	0	3,386	2/ 16	0
Emergency livestock/ forage assistance	16	0	0	0	0	0	31	533	180	76
Purchases (net)	2,031	2.540	1.470	1,331	1,670	–479	–1,131	116	–122	37
Producer storage payments	679	964	268	329	485	832	658	174	175	27
Processing, storage, & transportation	355	665	639	657	1,013	1.659	1,113	659	380	306
Operating expense 3/	294	328	362	346	457	535	614	620	627	634
Interest expenditure	–13	3,525	1,064	1,435	1.411	1,219	395	65	653	527
Export programs 4/	65	398	743	134	102	276	200	–102	–39	67
Other	–281	–1,607	679	–648	329	305	1,757	–13	811	1,085
Total	11,652	18,851	7,315	17,683	25,841	22,408	12,461	10,523	6,742	7,651

1/ Fiscal 1988 wool & mohair program outlays were $130,635,000 but include a one–time advance appropriation of $126,108,000, which was recorded as a wool program receipt by Treasury. 2/ Benefits to farmers under the Disaster Assistance Act of 1989 are being paid in generic certificates & are not recorded directly as disaster assistance outlays. 3/ Does not include CCC Transfers to General Sales Manager. 4/ Includes Export Guarantee Program, Direct Export Credit Program, & CCC Transfers to the General Sales Manager. E = Estimated in the fiscal 1991 Mid–Session Review based on June, 1990 supply and demand estimates. Minus (–) Indicates a net receipt (excess of repayments or other receipts over gross outlays of funds).

Food Expenditures

Table 38.—Food Expenditure Estimates

	Annual			1990			1990 year-to-date		
	1987 R	1988 R	1989 R	May	June P	July P	May	June P	July P
				$ billion					
Sales 1/									
Off-premise use 2/	245.844	257.881	273.987	24.6	24.8	24.6	115.8	140.6	165.2
Meals & snacks 3/	179.169	196.630	203.599	18.9	19.4	19.3	87.2	106.6	125.9
				1989 $ billion					
Sales 1/									
Off-premise use 2/	273.160	273.947	273.857	23.4	23.6	23.6	109.6	132.9	155.9
Meals & snacks 3/	195.095	202.533	203.565	18.1	18.5	18.4	84.3	102.8	121.2
				Percent change from year earlier ($ bil.)					
Sales 1/									
Off-premise use 2/	3.6	4.9	6.2	5.4	5.8	3.4	6.0	6.0	5.6
Meals & snacks 3/	10.8	9.7	5.1	7.8	8.5	6.6	7.3	7.5	7.4
				Percent change from year earlier (1989 $ bil.)					
Sales 1/									
Off-premise use 2/	-0.8	0.3	0	0.2	-0.4	-2.6	-0.8	-0.7	-1.0
Meals & snacks 3/	6.5	3.8	0.5	2.7	3.4	1.8	2.4	2.6	2.4

1/ Food only (excludes alcoholic beverages). Not seasonally adjusted. 2/ Excludes donations & home production. 3/ Excludes donations, child nutrition subsidies, & meals furnished to employees, patients, & inmates. R = revised. P = preliminary.

NOTE: This table differs from Personal Consumption Expenditures (PCE), table 2, for several reasons: (1) this series includes only food not alcoholic beverages & pet food which are included in PCE; (2) this series is not seasonally adjusted, whereas PCE is seasonally adjusted at annual rates; (3) this series reports sales only, but PCE includes food produced & consumed on farms & food furnished to employees; (4) this series includes all sales of meals & snacks. PCE includes only purchases using personal funds, excluding business travel & entertainment. For a more complete discussion of the differences, see "Developing an Intergrated Information System for the Food Sector," Agr.-Econ. Rpt. No. 575. Aug 1987.

Information contact: Aiden Manchester (202) 786-1880.

Transportation

Table 39.—Rail Rates; Grain & Fruit/Vegetable Shipments

	Annual			1989	1990					
	1987	1988	1989	July	Feb	Mar	Apr	May	June	July
Rail freight rate index 1/ (Dec. 1984=100)										
All products	100.1	104.8	108.4	108.9	107.1	107.1	107.4 P	107.3 P	107.0 P	107.0 P
Farm products	99.3	105.6	108.4	108.2	109.4	109.4	109.9 P	110.1 P	109.2 P	109.5 P
Grain	98.7	105.4	108.7	108.4	109.1	109.1	110.3 P	110.0 P	108.9 P	109.0 P
Food products	98.6	103.2	103.9	104.2	105.0	105.0	105.6 P	105.4 P	104.5 P	104.3 P
Grain shipments										
Rail carloadings (1,000 cars) 2/	29.0	30.7	28.4	25.1	32.4 P	29.5 P	27.9 P	25.8 P	27.9 P	25.6
Fresh fruit & vegetable shipments										
Piggy back (1,000 cwt) 3/ 4/	588	535	503	580	453	370	401	598	572	438
Rail (1,000 cwt) 3/ 4/	630	607	590	517	684	572	452	590	802	414
Truck (1,000 cwt) 3/ 4/	9,137	9,679	9,721	9,928	7,776	8,738	10,179	11,646	12,749	9,981
Cost of operating trucks hauling produce 5/										
Owner operator (cts./mile)	116.3	118.7	124.1	123.4	127.6	127.0	127.5	127.2	126.4	126.8
Fleet operation (cts./mile)	116.5	118.4	123.4	122.9	127.5	126.5	127.1	126.7	125.8	126.7

1/ Department of Labor, Bureau of Labor Statistics. 2/ Weekly average; from Association of American Railroads. 3/ Weekly average; from Agricultural Marketing Service, USDA. 4/ Preliminary data for 1989 & 1990. 5/ Office of Transportation, USDA. P = preliminary.

Information contact: T.Q. Hutchinson (202) 786-1840.

Indicators of Farm Productivity

Table 40.—Indexes of Farm Production Input Use & Productivity

	1981	1982	1983	1984	1985	1986	1987	1988	1989 2/	1990 2/
						1977=100				
Farm output	118	116	96	112	118	111	110	102	111	116
All livestock products 3/	109	107	109	107	110	110	113	116	116	117
Meat animals	106	101	104	101	102	100	102	104	103	101
Dairy products	108	110	114	110	117	116	116	118	118	120
Poultry & eggs	119	119	120	123	128	133	144	150	156	163
All crops 4/	117	117	88	111	118	109	108	92	108	111
Feed grains	121	122	87	116	134	123	106	73	108	—
Hay & forage	106	109	100	107	106	106	102	89	101	—
Food grains	144	138	117	129	121	106	107	98	107	—
Sugar crops	107	96	93	95	97	106	111	105	106	—
Cotton	109	85	55	91	94	69	103	107	86	—
Tobacco	106	104	75	90	81	63	62	72	74	—
Oil crops	114	121	91	106	117	110	108	89	106	—
Cropland used for crops	102	101	88	99	98	94	88	86	90	—
Crop production per acre	115	116	100	112	120	116	122	107	119	—
Farm input 5/	102	99	97	95	92	87	86	85	—	—
Farm real estate	104	102	101	97	95	93	92	91	—	—
Mechanical power & machinery	98	92	88	84	80	75	72	71	—	—
Agricultural chemicals	129	118	105	121	123	110	111	113	—	
Feed, seed, & livestock purchases	108	108	110	106	106	103	111	107	—	—
Farm output per unit of input	116	117	99	119	128	127	128	120	—	—
Output per hour of labor										
Farm 6/	123	125	99	121	139	139	142	134	—	—
Nonfarm 7/	100	99	102	105	106	108	109	111	—	—

1/ For historical data & indexes, see Economic Indicators of the Farm Sector: Production & Efficiency Statistics, 1988, ECIFS 5–6. 2/ Preliminary indexes for 1989 based on Crop Production: 1989 Summary, released in January 1990, & unpublished data from the Agricultural Statistics Board, NASS. 3/ Gross livestock production includes minor livestock products not included in the separate groups shown. It cannot be added to gross crop production to compute farm output. 4/ Gross crop production includes some miscellaneous crops not in the separate groups shown. It cannot be added to gross livestock production to compute farm output. 5/ Includes other items not included in the separate groups shown. 6/ Economic Research Service. 7/ Bureau of Labor Statistics. — = not available.

Information contact: Jim Hauver (202) 786–1432.

Food Supply and Use

Table 41.—Per Capita Consumption of Major Food Commodities[1]

	1982	1983	1984	1985	1986	1987	1988	1989 2/
					Pounds			
Meats (boneless, trimmed weight) 3/	116.7	120.3	119.9	120.9	118.3	113.3	115.1	111.3
Beef	72.4	73.8	73.8	74.3	74.1	69.2	68.2	65.0
Veal	1.4	1.4	1.5	1.5	1.6	1.3	1.1	1.0
Lamb & mutton	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.1
Pork	41.9	44.0	43.7	44.1	41.6	41.8	44.7	44.3
Fish (edible weight) 3/	12.3	13.1	13.7	14.4	14.5	15.5	15.0	15.7
Canned	4.3	4.8	4.9	5.1	5.2	5.0	4.6	5.0
Fresh & frozen	7.7	8.0	8.3	9.0	8.9	10.2	10.7	10.4
Cured	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Poultry (boneless weight) 3/	45.0	45.9	47.2	49.4	51.1	55.3	57.1	60.5
Chicken	36.5	37.0	38.2	39.8	40.5	43.2	44.5	47.0
Turkey	8.5	8.9	9.0	9.5	10.5	12.0	12.6	13.5
Eggs	33.5	33.0	32.9	32.2	32.0	32.1	31.0	29.7
Dairy products								
Cheese (excluding cottage)	19.9	20.5	21.4	22.5	23.0	24.0	23.6	23.7
Cottage cheese	4.2	4.1	4.1	4.1	4.1	3.9	3.9	3.5
Fluid whole milk 4/	133.2	130.0	126.5	122.9	116.0	111.1	105.2	95.3
Fluid lowfat milk 5/	83.0	85.4	88.6	93.4	98.3	100.1	100.0	103.6
Fluid skim milk	10.6	10.6	11.5	12.6	13.4	14.0	16.0	19.7
Fluid cream 6/	3.4	3.7	4.0	4.4	4.7	4.6	4.6	4.7
Yogurt	2.6	3.2	3.7	4.1	4.4	4.4	4.6	4.3
Ice cream	17.6	18.0	18.1	18.1	18.4	18.3	17.2	16.0
Ice milk	6.8	6.9	7.0	6.9	7.2	7.4	7.9	8.3
Fats & oils								
Butter	4.3	4.9	4.9	4.9	4.6	4.6	4.5	4.3
Margarine	11.0	10.4	10.4	10.8	11.4	10.5	10.2	10.1
Shortening	18.6	18.5	21.2	22.8	22.0	21.3	21.2	21.2
Lard (direct use)	2.5	2.1	2.1	1.8	1.7	1.8	1.7	1.8
Edible tallow (direct use)	1.3	2.1	1.7	1.9	1.8	1.0	0.8	0.9
Salad & cooking oils	21.8	23.5	19.8	23.5	24.1	24.7	24.8	23.6
Selected fresh fruits								
Bananas	22.5	21.2	22.1	23.4	25.7	24.9	24.2	24.6
Apples	16.9	17.7	17.8	16.8	17.4	20.4	19.1	20.7
Oranges	12.3	15.6	12.4	11.9	14.0	13.5	15.0	12.2
Grapefruit	7.3	7.9	6.2	5.6	6.4	6.5	6.5	6.7
Grapes	5.6	5.5	5.9	6.8	6.6	6.9	7.3	6.2
Selected fresh vegetables								
Iceberg lettuce	23.8	21.6	24.1	23.0	21.5	24.9	25.6	27.2
Onions	14.8	14.5	15.2	15.9	16.2	15.8	17.0	16.8
Tomatoes	3.4	3.4	3.8	4.0	4.3	4.3	4.5	4.5
Sweet corn 7/	6.5	6.7	7.0	7.0	6.6	6.8	6.2	6.9
Broccoli	2.0	2.1	2.5	2.7	3.2	3.3	3.9	4.1
Cauliflower	1.5	1.6	2.0	2.1	2.5	2.5	2.7	2.6
White potatoes								
Fresh	44.9	47.7	46.8	44.8	47.6	46.5	52.4	44.8
Frozen	19.2	19.5	21.7	22.6	22.9	23.7	21.3	23.3
Sweetpotatoes 8/	5.5	4.6	5.0	5.4	4.4	4.5	4.1	4.1
Grains								
Wheat flour 9/	116.7	117.4	118.9	124.3	125.2	129.3	129.3	122.7
Rice products 10/	11.8	9.7	8.6	9.1	11.6	13.5	14.3	15.7
Dry pasta	10.3	10.6	11.0	11.3	11.6	11.9	12.2	12.8
Breakfast cereals	11.9	12.2	12.5	12.8	13.1	13.4	14.1	14.6
Caloric sweeteners 11/ 12/	127.8	130.4	129.7	132.8	133.5	132.8	133.0	133.3
Sugar (refined) 13/	73.6	71.0	67.6	63.4	60.8	62.4	62.0	62.2
Corn sweeteners (dry weight) 11/ 14/	48.2	52.6	58.8	65.6	67.4	68.6	69.8	69.7
Low-calorie sweeteners 15/	9.5	12.9	15.8	18.1	18.5	19.0	20.0	—
Other								
Coffee (green bean equiv.)	9.9	10.0	10.2	10.4	10.5	10.1	9.3	9.3
Cocoa (chocolate liquor equiv.)	3.0	3.2	3.4	3.7	3.6	3.9	3.9	4.0
Peanuts (shelled)	5.9	5.9	6.0	6.3	6.4	6.4	6.8	7.1
Tree nuts (shelled)	2.2	2.2	2.3	2.3	2.2	2.2	2.3	2.4
Dry edible beans & peas 8/	6.4	6.4	5.0	7.0	6.6	5.0	5.7	5.0
Soft drinks (gal.)	26.9	26.9	27.2	30.4	31.9	30.5	31.7	32.0
Citrus juice (gal.)	5.1	5.6	4.8	5.2	5.6	5.3	5.3	—

1/ Quantity in pounds, retail weight unless otherwise stated. Data on calendar year basis except fresh citrus fruits, apples, grapes, peanuts, potatoes, sweetpotatoes, & rice, which are on a crop-year basis. 2/ Preliminary. 3/ Total may not add because of rounding. 4/ Plain & flavored. 5/ 1% & 2%, buttermilk, & flavored drinks. 6/ Heavy cream, light cream, & half & half. 7/ On-cob basis. 8/ Farm weight. 9/ White, whole wheat, semoline, & durum flour. 10/ Excludes canned, frozen, & fresh pasta products. 11/ Dry weight equivalent. 12/ Includes edible syrups & honey. 13/ Beginning 1982, includes small amount of refined sugar contained in imported blends & mixtures, including sucrose-dextrose blends, sugar-sweetened tea mixes, & flavored syrups in consumer size containers. 14/ High fructose, glucose, & dextrose. 15/ Sugar sweetness equivalent. Assumes saccharin is 300 times as sweet as sugar, & aspartame, 200 times as sweet as sugar. — = not available.

Information contact: Judy Jones Putnam (202) 786-1870.

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